NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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JULY.

"O that this too, too solid flesh would melt,
Thaw, and resolve itself into a dew."
Hamlet, Act 1, *Scene* 2.

JULY — arid, tropical month. What an exalted idea it gives one of the energy and patriotism of our forefathers, to think they could muster resolution to declare themselves "free and independent," on a hot day in July. We wonder they did not wilt into supine submission to George III., or anybody else who chose to place an oppressive foot upon their necks. When we forget to commemorate their heroism with ringing of bells, speeches, fireworks, cannon and India crackers, we deserve to lose "the peace their valor won;" yea, more,—to go without "tea" the rest of our natural lives!

Sydney Smith is said to have wished he could "take off his flesh and sit in his bones awhile," by way of keeping cool! Though mankind are not generally so anxious to get rid of their "fleshly weeds," they certainly are very much addicted to finding fault with the weather.

For instance,—last winter we had some days of "remarkable weather." This spring east winds prevailed to an uncommon extent, although we were told that once in three hundred years May was a *rainless* month, and that this was the identical three hundredth—therefore fears were entertained that life would be entirely parched out of the vegetable world.

Others took a different view of the case, and were apprehensive that the premature heat would be succeeded by an "unkindly frost" or perhaps a snow-storm, which should nip in the bud the forth-putting leaves and flowers. Now July has arrived, and although naturally enough "hot weather may be expected about this time," how many times will it be remarked that this is the very hottest summer that has been known for years—it may be, even within the memory of the "oldest inhabitant."

Perhaps those who suffer the greatest inconvenience, are the ones who do nothing but try to keep comfortable. The lady who sits at her window in a white wrapper, watching the reapers at work under a broiling sun, bestows a great deal of commiseration upon them, because she does not know that the faintest breeze brings cooling to their brows—and that by being busy, we forget to say "how hot it is."

We may call this the high noon of summer. The great clock which tells the Months of the Year, has struck twelve, but we must give ourselves only a short nooning, for time flies and labor presses. Our hay, our oats, rye and barley will soon be ready for the sickle or the scythe. They have been silently growing taller and taller every moment since last APRIL, impelled by some power which we cannot comprehend. It seems but a little while since the seeds were buried deep down in the earth, and nothing but repeated observation could have convinced us that there should be a resurrection of these few poor grains that we planted. We could have shown no reason why these dead and buried seeds should spring up to a fresher and fuller life. But here they are, and summer after summer we have seen the miracle repeated, until we pass it by without wonder, calling it the *"order of Nature."*

"They took a plow and plowed him down,
Put clods upon his head,
And they ha' sworn a solemn oath,
John Barley-corn was dead.

"But the cheerful spring came kindly on,
And showers began to fall—

John Barley-corn got up again,
And sore surprised them all."

A curious custom prevailed, and for aught we know, does still, in Scotland, of doing their harvesting in couples—every Jack having his Jill. It must have been in reference to this usage that "Gin a body meet a body" was written—for only imagine it applied to two of *our* harvesters in red flannel shirts "a comin' through the rye." Burns tells us that his yoke-fellow at the gathering in of the harvest, was his first love. He describes her as a "bonnie, sweet sonsie lassie." For the benefit of those who doubt the poet's ability to select his "first love" from the numerous train to whom he paid his addresses, we will say that he was at this time only fifteen years of age, and the lassie a year younger. We can easily suppose that this was before he had become acquainted with the Nannies and Marys and Peggies who figured in his poems. It must strike every one that Burns was remarkably fortunate in his female friends, if we may trust to his own description of their charms; but we fear that a less romantic explanation of the circumstance is the true one, and that the graces which he threw around them existed only in his imagination.

The fantasy of the poet was a Midas' wand that tinged the earthliest thing with gold. We learn that his brother, a more common-place personage, "looked upon some of the ladies of these early verses as so many moving broom-sticks, on which fancy hung her garlands! Not a very flattering description, but such is the power of genius that it may throw a halo around the most common objects, not only for itself, but for the whole world. Who does not think with tender interest of "Highland Mary"—an interest so great that even a spear of her hair which found its way to the Burns' festival in Boston, was regarded with enthusiasm,—yet who, for her own sake, would have given a thought to the dairy-maid of the Castle of Montgomery?

Having reached our editorial limits, we make our exit, wishing all a good "mess" of green peas for the Fourth, and to our young friends in particular, we would say, that although it may not accord with our Yankee notions of gallantry to see our girls bearing sheaves at the Harvest—may each find some "bonnie sweet sonsie lass," to help him bear the burdens of life.

THE TYSON PEAR.—This pear, it is well known, is long in coming into bearing when grown on pear stocks, and this quality is regarded as a serious drawback on its value. But the objection vanishes when it is cultivated as a dwarf. The most beautiful object we ever saw in the form of a bearing tree, was a four year Tyson a few years since, on the grounds of Ellwanger & Barry, of Rochester, of symmetrical form, and loaded with ruddy-cheeked pears. The present unfavorable year, a small tree five feet high, set three years, in the garden of David Thomas, of Union Springs, is bending under its crop of Tyson. This variety grows well on the quince, and promises to be one of the most profitable dwarfs.—*Country Gentleman.*

TURNIPS AMONG CORN.

MR. EDITOR:—I wish to call the attention of my brother farmers to the fact that turnips can be grown among corn with very little trouble or expense. I have raised them for several years in the following manner: After the cultivator went through the corn the last time for the season, I followed that with the turnip seed, sowing broadcast; a boy follows dragging a hand-rake, and it is done. Last year I used a drill with better success than broadcast. Two boys can keep up with the cultivator—one to pull, the other at the handles. Put one row of turnips between each row of corn. I, of course, am alluding to ground that will bring a good crop of corn; in poor ground it is useless to put turnip seed or anything else among corn. I have tried several different kinds of turnips, and find the Yellow Aberdeen and White Norfolk to produce the best. The latter I think is most productive. The seed can be procured at almost any of the seed stores in Philadelphia, at one dollar a pound, and a pound I think sufficient for a five-acre field. It will most likely produce two or three hundred bushels. Now I consider the cost and trouble nothing in comparison to that amount of turnips fed during winter and spring. I do not consider the corn injured in the least by the turnips, as they grow principally after the corn is cut off.—*Germantown Telegraph.*

MONEY IN ENGLISH ELECTIONS.—In spite of the outcry of the London *Times* about Mr. Buchanan's Duquesne letter, it seems that we must go to the mother country, after all, if we want to learn how to spend money in elections. The London correspondent of the New York *Tribune* writes in his last letter:

"As to the internal affairs, the conservatives have gained about twenty seats, and are still in a minority of about sixty votes in full Parliament. Still, they have consolidated their party by stupendous bribery. Lord Derby subscribed £20,000 for the election, the Duke of Northumberland £25,000, each of the three new peers £10,000, and some £30,000 more were furnished by the other members of the Carlton Club."

GRASS UNDER TREES.—By sowing nitrate of soda in small quantites in showery weather, under trees, a most beautiful verdure will be obtained. I have used it under beech trees in my ground, and the grass always looks green.—Having succeeded so well on a small scale, I have now sown nitrate of soda among the long grass in the plantations, which cattle could never eat. I now find that the herbage is preferred to the other parts of the field.—*Prairie Farmer.*

SHEEP SHEARING.

WHEN SHOULD IT BE DONE?

The common answer to this question is: When the oil has been secreted after washing, so that the wool has its greasy look and feel, and the "yolk" has begun to form near the root of the fibre. This is well—one other matter needs to be looked after, also. It is the growth of the new wool. Every year a new growth of wool commences from the skin of the sheep. This should be watched by the shepherd, and the shearing should be done just as the second growth begins to start. The shearer should cut as nearly as possible along the dividing line between the old and the new. If the second year's growth is allowed to grow somewhat, before shearing, you take part of two years' wool in the same fleece. This impairs the fibre, for at the point of union between the growths of the two years, the wool is weak. This lowers the price. Besides, if the shearing is long delayed, the fleece for the next winter will be thinner, and the sheep more liable to sicken and die. On the other hand, if you shear *before* the second year's growth has started at all, some of this year's growth will be left at the outer extremity of the next year's fleece. This remnant of this year's fleece, will diminish the value of the next year's fleece, for the reason mentioned above. We say, then, shear your sheep, if possible, when the new fleece just begins to start.

PREPARATIONS FOR SHEARING.

Sweep off the barn floor, scatter a little straw over it, and nail over that a bit of coarse canvas, or old oil cloth. This will make a soft bed for the sheep to rest on during shearing, and it can be kept perfectly smooth and clean.

If you use low benches to shear on, they should be prepared in a similar way. The place where the sheep lie during the process should, at least, be very clean and smooth, to avoid filth in the wool, or tearing it with a rough surface. Drive into the out-side barn-yard, sheep enough to last the shearers half a day. Then drive a portion of these into a smaller enclosure, (a stable or part of the "bay") near the barn floor. Strew the floor of this enclosure with clean straw, that the sheep may not become dirty, if they lie down.

CAUTIONS ABOUT PREPARING.

1. Wait till the dew is off, before shutting up the sheep, under cover.

2. Do not, if you can avoid it, confine a greater number of sheep *at once*, than the shearers can shear in half a day. It does the sheep no good to be long shut up, and the shearing can be done more easily and neatly, if the body of the sheep is full of food.

3. The above cautions are for dry weather. But if the weather should be wet, you must either wait a few days, till it becomes clear, or keep the sheep under cover and feed them as best you can. For it should be always kept in mind, that shearing should not be done when the wool is wet. Sometimes in "catching" weather, sheep thus confined, can be let out to feed in a pasture near by, and driven under shelter again, if a shower should be coming up.

4. These facts, as well as the fatiguing nature of the work, will suggest the importance of employing as great a number of good hands as you can, and doing up the work as soon as possible. We would want "good hands," for a poor shearer wastes more than his wages, in haggling the wool, and injuring the sheep.

MODE OF SHEARING.

Every shearer has his own way. We would not dictate to any. But the following is a good mode:—Place the sheep on his rump, with his back towards you, and his left side resting against your left leg and thigh. In this position, the sheep may have "his jacket opened;" that is, the shearer will commence at the brisket, and shear down the belly on the right side; then shear the outside of both thighs; then up, on the left side of the belly to the brisket; and then both sides of the neck, with the head. This is "opening the jacket." The sheep is then laid upon his side, and the shearer commences at the rump, and shears thence towards the head. Then the sheep is turned over, and the other side is sheared in like manner. Great care should be taken in turning the sheep, to prevent his struggling and kicking the fleece to pieces. Prudence and gentleness are qualities that will pay here, as well as everywhere else. A few suggestions must close what we say now. Remove all straws, burs and other filth from the fleece, before beginning to shear. Also wipe the feet of the sheep, if they have dung on them. Keep the platform clear, by frequent sweepings. Use no violence, and remember with pity the fears of a dumb animal. Shear close and even, and be very careful not to cut the wool twice, which is often done by unskillful or careless shearers. Do not cut the skin of the sheep, or prick it with the point of the shears. When the operation is done, see that all tags and stray locks are cut off, from legs, tail, belly, and every other part. Leaving such tags is very slovenly, and gives protection to the ticks. —*Ohio Farmer.*

WILL YOU LEND ME YOUR —?

Yes, neighbor, if you will bring it home again *to-day*. There is no greater trial of one's patience than this everlasting unfaithful borrowing. No benevolent man—such as we are—will refuse to lend a friend a book or a hat, a razor or a handsaw, a plow or a pick-axe, if he can have a reasonable assurance that it will be returned, when the immediate purpose for which it was borrowed has been accomplished. But to reduce yourself to beggary, by lending all you have, with no prospect of seeing again in proper time or suitable condition, the articles lent, is a tax upon our good nature, which is perhaps more than ought to be borne.

We have sometimes doubted the inspiration of the proverb, "The borrower is servant to the lender." At any rate, men have so far deteriorated in their sense of propriety, that they—some people—borrow with the most perfect assurance, as if the lender were a servant to them. Of this, however, we should not complain. Let us lend cheerfully all that is asked, as humble servants of the borrower, but let us muster courage to say to our inveterate and self-confident borrowing friends, please return that axe, umbrella, book, hoe, rake or jackknife, to-day or to-morrow, or as soon as you can make it convenient.—*Portland Transcript.*

For the New England Farmer.

ORNITHOLOGY.

BY S. P. FOWLER.

The family of wrens in the United States and Territories is composed of twelve species, and includes the genus regulus, (crested wrens) and the Troglodytes or proper wrens. The only species I have observed in Danvers are the house wren, winter wren, marsh wren, golden-crested wren and ruby-crowned wren. The common house wren, (Sylvia Domestica, of Wilson,) which I intend more particularly to notice, is the most numerous species found in Massachusetts. It has become completely domesticated, is never seen in our woods and forests, and seldom noticed far from the habitations of men. With the protection it everywhere receives, it is singular it is not found more abundantly, as it rears two broods of young in a season, and lays from six to nine eggs. Its habits are very peculiar and eccentric, possessing individuality in a high degree. It is never moved by a particle of gregarious emotions so common in birds; on the contrary, two pair of wrens can never endure each other's presence in a garden, a quarrel always taking place, and one of them is forced to quit the premises. Although quite a small specimen of ornithology, it is smart and courageous, petulant and imperious. It seldom fails to assault the peaceable blue-bird, when preparing to breed in the neighborhood, by visiting its nest in the owner's absence, and committing outrages, of which one would suppose such little birds would not be found guilty, but leave such exploits to be performed by the cautious, piratical crow, or the handsome fillibustering blue jay. These visits of the wren to the domicil of the blue-bird are for the purpose of demolishing its nest, or sucking its eggs, and if surprised in these felonious intentions by the return of the mild, but justly indignant bird which wears the blue coat, it evades its deserved punishment about to be inflicted, by fluttering to the ground on its short curved wings, when it conceals itself in the shrubbery or passing along under cover, a few rods, it rises again to the top of a tree, and utters its hurried, trilling notes in defiance.

While thus invading the premises of others, the wren is very careful of its own; not a bird can come near them for honest and peaceful purposes, without a hostile threat, or severe scolding, such an one as no other songster, but the one in a drab colored dress, knows how to inflict. Notwithstanding all this, the little churl possesses good qualities, alike noticeable in birds as well as men. Its domestic habits are admirable, taking the best care of its numerous offspring, being careful to warn them of the dangers, which beset their youthful flights, and of the cruel habits of the feline race, as every stealthy marauding cat, (our birds' greatest enemies and tormentors,) would be compelled to admit, could these felines, (which should be shot, every one of them, when found in a garden,) be made to testify. The wren is also an industrious bird, its industry being peculiar, and not noticed in other birds. It builds a large nest, if we regard its surroundings, composing a foundation of short crooked sticks, that one would suppose would be very difficult to be managed by so small a bird. His labors, (I here speak more particularly of the male,) are not confined to constructing in connection with his mate, a cradle for his young, but embrace other than this, a constant instinctive desire to labor, when nothing useful is produced, in building nests not wanted, and but half formed. The wren is busy in this unproductive work, simply because he must be employed, cannot afford to be idle.

We see this industrious trait of character in men and think it commendable. I have never seen anything like it in birds, with the exception of the one under consideration, and it has also been noticed in the house wren of Europe. This labor is usually performed by the wren, when not particularly engaged with its own affairs, by odd jobs, as we say, chiefly when the female is engaged in incubation, when time passes slowly with him, helping to fill up a long day in June; with other engagements, such as scolding at the cat, as soon as he gets his eye upon her, prying into every nook and corner of the garden, by creeping about more like a mouse than a bird, and striving to obtain a general meddlesome knowledge of the affairs of all birds in his neighborhood. This labor, as we have before intimated, consists in forming as many half-finished nest as he can find boxes in which to build.

A friend of mine, desirous of getting as many of these birds to breed in his garden as possible, placed some two or three boxes in his grounds for their accommodation. In conversation he observed to me one day, that his boxes were all filled with wrens, and was much pleased with the supposed fact. Knowing the singular propensity of this bird to engage in useless labor, I remarked, upon examination he would probably find but one pair of wrens in his garden. Ah! but, says he, I saw the birds go in and out of the boxes, and build their nests. I replied, we will examine them, and see if we can find eggs or young. Upon examination we found in all the boxes, but the one that was the true domicil of the wrens, nothing but a mass of short, crooked sticks! I never had but one pair of wrens in my grounds at the same time, although I have heard persons say *they had* two pair in the spring, but one of them was caught by a cat. I suppose, in this particular case, grimalkin's character had suffered unjustly, which so seldom happens in the imputed cases of bird-catching, I am particularly desirous here to notice. In my grounds the wren raises two broods in a year, and its sprightly and tremulous note is heard as late as the 20th of September. But little is known of its migratory habits; where it goes in autumn, and from whence it comes in spring, no ornithologist knows. It manages with its short wings to migrate beyond the limits of the union; most probably to Mexico. It comes to us in the night, and its pleasing, lively note, is first heard upon a pleasant morning in the early part of May.

Knowing, friend Brown, your love for birds, I send you with this communication an olive-jar expressly prepared for kitty wren. In these jars I have found them more inclined to breed than in anything else, having had one of them in my garden for many years. The way and manner of placing it upon a pole, I have, I think, informed you.

Danversport, April 13th, 1859.

AGRICULTURAL REPORTS.

It has been our purpose to present a series of notices of the *Reports of the State and County Agricultural Societies of the past year.* We published a notice of the Transactions of the Massachusetts Society, soon after its publication, and have slightly noticed one or two others.

We propose now to take them up in order, and make such remarks as their contents may suggest. In general, they indicate that the Agriculture of the Commonwealth is in a progressive state, and that all classes of the community are interested in its promotion. There is no want of zeal or effort in the cause. There is a great amount of force and energy brought to bear upon the subject. But one thing is very obvious, on looking over the Reports, and that is, a want of unity, method and system. If there could be a meeting of the officers of the several societies, and a plan of operations carefully digested and arranged, we cannot but believe that much good would come from it, and some of the measures resulting from the want of experience and from the impulsive character of Young America, would be suppressed, and no small amount of force, that now does more harm than good, be directed into useful channels. Perhaps the Board of Agriculture might do something to promote this object, and to divert the zeal and efforts of agricultural men to these subjects that deserve immediate attention.

The Massachusetts Society has set a good example in this respect. That Society has annually directed its attention to some specific object, which the exigencies of the times seemed to demand. This year, they have called attention to the establishment of local fairs for the exhibition of stock, produce and implements, and in consequence of their recommendation—seconded by the action of the State Board of Agriculture—a Market Day, or Fair, was holden at South Danvers, the 3d inst., and others will be held in various parts of the State. We are inclined to think that such fairs, properly arranged and managed, wherever the population is sufficiently dense, will be productive of much good. They will bring the farmers together, and enable them, by sale or purchase, or by barter, to supply their several wants, without intervention of "middlemen," who usually carry off the profits of such traffic, and furnish them an opportunity to dispose of the products of their farms directly to the consumers and dealers. There are several places in the state where such fairs may be held to advantage. We shall watch their course with interest, and be prepared to publish notices of such of them as we may witness, or that may be offered to us from time to time by others.

Farming is a progressive business, and new methods, new implements and new subjects of attention present themselves from year to year, and should receive due regard from the managers of our agricultural societies.

The tendency at the present time is to give the control of our county societies to men who are not farmers—men who wish to keep themselves before the people, and to make agriculture a hobby which they may ride for some effect not set forth in the "Farmer's Guide Book!" Such men may infuse a certain degree of energy into their movements, but their object, it may reasonably be supposed, is often an ulterior one. They aim to produce a sensation, and to carry things through with *eclat*, and are quite likely to be content when their personal objects are attained.

We think more careful thought is needed in appropriating the bounty of the State, so that the most *permanent* good shall be accomplished by it. The object of this bounty is not to put money in the pockets of the competitors, for premiums, but to promote agricultural experiments, and real improvements; to diffuse scientific and practical knowledge, and to increase the product of the soil. When the object is merely to obtain the prizes, and no pains are taken to furnish statements of the methods pursued in producing the articles or animals for which they are awarded, which may be useful to others, or which may afford reliable information, it is time they were withheld, or appropriated to some other means of effecting the same objects.

The premiums paid by the Massachusetts Society for Essays upon agricultural subjects, will do more for the cause than twice the amount paid for articles that were produced by accident, or were cultivated expressly for the premium, at an expense of land, manure and labor that no practical man can afford. What is wanted at the present day, is, that farmers should make well arranged, careful experiments, and give the results, *whether successful or not*, in a clear, reliable form, so that they may convey information of a practical character. One such experiment is worth more than a hundred big squashes, or beets, and we hope a set of well digested experiments will be prepared, and liberal premiums offered for them, to be paid, whether they result profitably or otherwise, provided they are conducted in conformity to the prescribed conditions.

If one-half the money from the State treasury were appropriated in this way, we have no doubt that it would do more to promote agriculture than is accomplished by it at the present time.

Essays upon stock-breeding and stock-feeding, upon draining and reclaiming pasture lands, upon grain crops, and root crops, upon meteorology, geology, and various topics connected with the subject of agriculture, should receive so lib-

eral a portion of the State bounty, that the talents of agricultural writers shall be called into requisition, and the intellectual activity of the farmers be quickened. This will do more to make farming an intellectual pursuit, and to make farmers respect their vocation, than any thing else, and is the thing that is especially wanting at the present day. Mere excitement, got up by the exhibition of fast horses and balloons, will do nothing to promote the cause of agriculture, but will rather divert attention from that sober and careful thought and observation, that are necessary to success, and serve to convert our agricultural exhibitions into mere puppet shows and vanity fairs. If such things must be done, let them have a day exclusively appropriated to them, and let them have no connection with the Farmers' Holidays.

One thing we would earnestly press upon each county society in the State; that is, that they appropriate a reasonable amount of their funds to carry through a series of meetings next winter, open to all persons, where discussions and lectures shall be continued through the afternoon and evening. Let them be conducted systematically, the subjects to be discussed selected with care, and proper notice of each meeting be given at least ten days in advance. We do not believe it possible for any one of the County Societies to expend one hundred dollars to so much advantage in any other way.

For the New England Farmer.

BEE CRITICISM EXPLAINED.

MR. EDITOR:—There was an article published in your paper some two weeks since, under the head of Bee Criticism, where Mr. Quinby has accused me of having a plate in my Circular like one of Mr. Langstroth's. I beg to inform him that he is in error. In respect to the proportions of the bees, I suppose Mr. Q. is aware that the bodies of the bees are not always of the same uniform size; but their heads always are. I suppose he is also aware that a family of bees is not complete without the presence of the drone, as there are three kinds of bees that constitute a colony. As he remarks that he has never witnessed bees as represented in that cut, perhaps he does not use an observatory glass hive, wherein those wonderful sights are often seen by the watchful eye of the bee-master.

Burlington, Vt. K. P. KIDDER.

NORTHERN AND SOUTHERN FISH.—Dr. Gesner, of Brooklyn, in his recent address before the American Geographical Society, says:—

"The fish of the North differed very much in appearance from those of the South, as all the southern and tropical fish were highly colored, like the colors of the flying dolphin. They seemed to be analogous to the birds of the South, whilst all our northern fish are of a dark color, and yet their flesh is more solid and healthy."

SOILING OF CATTLE.

In another column we have spoken of a work upon this subject, which will be of more interest in connection with the following extract from the work itself. We regret that we have not the means of laying the contents of the whole book —sixty-four pages—before the reader. Mr. Quincy says:—

My practice, and the result of the past year, were the following:—

My stock, consisting at an average of twenty cows, were kept in their stalls through the whole year. The practice was to feed them about six times in the day, and to permit them to range in a yard, about eighty feet square, two hours in the forenoon, and two in the afternoon. They were kept well littered and well curried. While they were out of the stable, the attendant took that opportunity to clean the stalls, and to supply fresh litter. During winter, they were fed, as is usual, with salt and fresh hay and vegetables. From June to November, inclusive, may be considered, strictly speaking, the soiling season; by which is understood that in which they are fed with green food in the house. As this is the critical period, I shall be minute in the accounts of my preparations and proceedings.

In the autumn preceding, I had caused rye to be sown upon an inverted sward, very thick, on about three acres. Early in April, I prepared and sowed, in manner as shall be stated afterwards, about three acres and one-quarter of land with Indian corn in drills. I also sowed about three acres of oats and buckwheat, broadcast, at the rate of three bushels to the acre, about the latter end of the month. The whole quantity of land I thus prepared to be used in soiling, in aid of my grass, did but little exceed nine acres. Of these, that which I sowed with rye turned out so poorly, that I never soiled from it more than five days; so that, in fact, the land thus prepared did, in efficiency, but little exceed six acres.

About the 1st of June, cattle, in general, were, this season, turned out to pasture. On the 30th of May, my farmer began to cut the sides of the road leading to my house from the highway and orchard. He continued to soil from this, and from grass growing in my orchard, until the 7th. On this day he abandoned cutting the grass for soiling, and began to cut from the winter rye. This was found too tough, and it was quitted; and my farmer returned to soiling upon grass. Having cut over all the refuse of my grass by the 24th of June, he then went into the poorest of my mowing land, and afterwards into my clover. From this he continued to soil until the 6th of July. By this time he had gone over not much short of three acres of mowing land. On the 6th of July, he began to soil from my oats. He continued to soil from these until the 21st of July. On the 21st of July, he began to soil on Indian corn; on which he continued until the 26th, when he began to cut about two acres of late and light barley. On this he continued until the 30th of July; when he recommenced soiling on corn-fodder, and continued upon it until the 31st day of August. On this day began to cut over the roadsides, which had been first cut early in June. This was continued only to the 2d of September;

when he began to cut the second crop of Indian corn growing upon the three and one-fourth acres of Indian corn, which had now shot up in great luxuriance from the roots of that which had been cut over between the 21st and 26th of July. On this soiling continued until the 8th of September.

On the 9th and 10th, he soiled upon about a fourth of an acre of millet and buckwheat; on the 11th, soiled on a second crop of clover; from the 12th to the 15th, inclusive, on corn-stalks of about an acre of sweet corn; and, on the 15th, on a patch of millet and oats. This was continued to the 20th; when he began on two acres of Indian corn, sown in drills, on the 1st of August, on land from which a crop of pease had been previously taken. Soiling was continued on this corn until the 3d of October. From this time until the 15th of October, the soiling was wholly from second crop grass taken from various parts of my mowing land.

From the 15th of October to about the 20th of November, they were kept wholly upon carrot and turnip tops, arising from the topping of about twelve acres of both; being allowed always one foddering of salt hay. This finished the summer feeding. From this time they are kept wholly upon salt and English hay. The result, then, of this experiment, so far as relates to land, is the following:—

The twenty head consumed the produce of		
2½	acres,	roadsides and orchard.
3	"	mowing land.
3½	"	Indian corn, cut as fodder.
2	"	late and light barley.
3	"	oats.
2	"	late sown Indian corn after a pea-crop.
½	"	Buckwheat.
1	"	millet, buckwheat, and oats.
17	acres.	

This is the whole land which was cut over for soiling, with the exception of the after-feed on the mowing land, and the tops of carrots and turnips. In comparing this result with the former practice of my farm, I apprehend the following statement to be just:—

I offset the keeping from the 11th of September to the 20th of November against the old manner of letting the cattle run at large during the autumn months on the mowing land, to its great injury, by poaching and close feeding. If this should not be deemed sufficient, I then make no estimate of the difference between keeping fifteen head of cattle, my present stock. After these allowances and offsets (which no man can doubt are sufficiently liberal.) then I state that my experiment has resulted, in relation to land, in this, that I have kept the *same amount of stock, by soiling on seventeen acres of land, which had always previously required fifty acres.* The result is, in my opinion, even in this respect, greater than what is here stated. This, however, is sufficient to exhibit the greatness of the economy of this mode, so far as relates to land.

For the New England Farmer.

MANAGEMENT OF THE HORSE.

Never attempt to clean or otherwise disturb your horse while eating his meals, unless you want him to bite and kick. But when you clean, take him out of the stall, and make a business of it. Tie your horse in the centre of the stall, unless you want him to do, as most horses do, drive more on one rein than on the other. Horses that are liable to cast themselves in their stalls, should be tied with neck-halters, giving them much more freedom of the head than the nose-halter. Gentleness, firmness and moderation will subdue the most obdurate. M. D.

Georgetown, Mass.

NEW BOOKS.

LANGSTROTH ON THE HONEY BEE. A Practical Treatise on the Hive and Honey Bee, by L. L. LANGSTROTH: with an introduction by Rev. ROBERT BAIRD, D. D. Third Edition, Revised, and illustrated with seventy-seven Engravings. New York: A. O. MOORE & Co., Agricultural Book Publishers, 140 Fulton Street.

We have spoken of this work in terms of commendation before. The present edition has been re-written, and the latest discoveries of the author added, and neatly illustrated with engravings in the highest style of the art; they are so accurate to nature, and so skilfully executed as to bear the sharpest scrutiny of the most accomplished artists; so that while the principles and teachings of the work come from a source of undoubted ability, they are clothed at once in form both enduring and attractive. We think it the best work extant on the subjects of which it treats, and commend it, without reserve, to those who wish to engage in the pleasing employment of tending these little

> "Creatures that, by a rule in Nature, teach
> The art of order to a peopled kingdom."

For sale by A. Williams & Co., 100 Washington Street, Boston.

THE LIFE OF NORTH AMERICAN INSECTS. By B. JAEGER, late Professor of Zoology and Botany in the College of New Jersey. Assisted by H. C. PRESTON, M. D. With numerous Illustrations from Specimens in the Cabinet of the Author.

This is one of a class of books that we take up with pleasure—one of the helps to good farming, because it will attract and interest, and lead the mind to a more intimate knowledge of what there is on the farm. When this is the state of the mind, it can never lack objects of study and investigation in the animals we raise, in the plants we cultivate, or in the soil itself. The truth is, we know very little of what there is about us. We see things daily that are common blessings, each one absolutely indispensable to the general good, pass by them indifferently, and sigh for some far off object, which, when acquired, would not be worth possessing. No other place on earth presents so many points of instruction, so many solid, and enduring attractions, as the farm. In itself it is a little world, with scope and verge enough for stronger minds than most of us possess. The want of interest in it springs from a want of a true knowledge of the advantages which it offers.

The book before us will shed light upon one of its departments. The book is written in pop-

ular form, sufficiently scientific for the general reader, and we hope will find its way to thousands of the homesteads of our people. New York: Harper & Brothers, Publishers. For sale by A. Williams & Co., 100 Washington Street, Boston.

ESSAYS ON THE SOILING OF CATTLE, Illustrated from Experience, and an Address, containing suggestions which may be Useful to Farmers. By JOSIAH QUINCY. Boston: Printed by John Wilson & Son, 22 School Street.

No man, probably, on this continent, has had so much experience on the subject of *soiling cattle*, that is, keeping and feeding them through the entire year in the barn—as Mr. Quincy has; and throughout his long experience, he has undoubtedly attended to it with a persistency of care and observation that characterize very few of our agricultural experiments.

He says "there are six distinct advantages which those who advocate soiling, propose to themselves by the practice, and on which they establish the preference of this mode to the common one of pasturing cattle during the summer.

1. The saving of land.
2. The saving of fencing.
3. The economizing of food.
4. The better condition and greater comfort of the cattle.
5. The greater product of milk.
6. The attainment of manure.

The only offset to all these advantages, is the labor of raising and cutting the food, and feeding and taking care of the stock."

Mr. Quincy discusses each of these heads with considerable minuteness; and sustains them by such reasons, as will go far to convince any person that his mode of managing his stock is a successful and profitable one. The Essays are full of important suggestions, and ought to be in the hands of our farmers generally.

We have enjoyed the pleasure of passing over Mr. Quincy's farm, and of listening to brief relations of his manner of treating his grass lands, of feeding his stock, cultivation of fruit and forest trees, &c. &c., and in their appearance found ample corroboration of what he states in his Essays. They ought, with his permission, to be published in the annual volume sent us by the State Board of Agriculture. We feel under personal obligation to him for the clear, comprehensive and valuable facts communicated, and will find an early opportunity to lay portions of them before the reader.

For the New England Farmer.

WATER CRESS.

The Water Cress, *(Nasturtium officinale,)* is considered to be one of the most wholesome of all our salad herbs, and one of the oldest in use. Its qualities are warm and stimulating—the very reverse, in some respects, to most other plants used in a green or uncooked state. The Dutch and English people use great quantities of this cress in spring, as an antiscorbutic. A salad so easily procured, being found in many of the running fresh water streams throughout Massachusetts, and withal so wholesome, particularly for those persons of sedentary habits, we should, at this season, when it is the proper time of the year to gather it before it runs up to seed, recommend its use.

The supply of water cresses brought every day to one market in London, is said to be, at least, ten thousand bunches, and this is probably not one-half the quantity sold in other parts of England daily.

J. M. I.

Salem, May, 1859.

For the New England Farmer.

DECAY OF PEAR TREES.

Writers for agricultural papers disagree as to the cause of the failure of the pear tree of late years, but all seem to concede the fact. Some suggest a sea-air, others ascribe it to a faulty cultivation, and others to raising them from the sprouts from the roots instead of the seed. My experience makes all these suggestions erroneous. I was born and brought up in York, Maine, a seaboard town, where the pear tree, sixty-five years ago, grew and flourished; natural fruit was abundant, from which much perry was made, more than in all other towns within my knowledge. The tree then sprouted up abundantly so as to be troublesome. Farmers in setting an orchard, generally set few pear trees for that reason. Two horse teams would come from Massachusetts yearly, and get these sprouts to graft.

About thirty years ago, I wanted some to set in the town of Parsonsfield, and went to my brother's in York to get them. I knew the few trees he had used to sprout so as to be a nuisance. I was disappointed when I got there, on being informed that pear trees had almost entirely ceased to sprout up, not only on his, but on other farms. I procured a few, however, and set them out, but they did not grow well. I procured young, thrifty, grafted trees from the West, and they did no better. I planted seeds and raised several trees, and they did not succeed any better. I have still a few trees that bear sparingly, and are gradually dying out. I at first attributed my failure to various causes of location and culture, but am now convinced, from constant poor success under various circumstances, that the tree has ceased to flourish as formerly. Whether this deterioration will continue, or after a series of years the tree will again succeed as of old, remains to be seen. In the culture of the peach tree, since my remembrance, there has been a series of years when the tree was easily raised and did well, and then for a series of years none could be raised, and then again they succeeded well, except their liability to winter kill occasionally. It may be so with the pear. The cause seems to be among those hidden things in the operations of nature we cannot fathom.

Parsonsfield, Me., 1859. RUFUS MCINTIRE.

☞ Somebody says the conversion of a South Sea Islander is an easy matter, compared with that of a Fifth Avenue heathen.

A PAIR OF JAVA FOWLS.

The account of these fowls which we give below, we copy from Bennett's Poultry Book.

These, like all other pure Java fowls, are of a black or dark auburn color, with very large black legs, single comb and wattles. They are good layers, and their eggs are very large and well-flavored. Their gait is slow and majestic. They are, in fact, amongst the most valuable fowls in the country, and are frequently described in the books as "Spanish fowls," than which nothing is more erroneous. They are as distinctly an original breed as the pure-blooded Great Malay, and possess about the same qualities as to excellence, but falling rather short of them as to beauty. This, however, is a matter of taste, and some consider the pure Java superior to all other large fowls, so far as beauty is concerned. Their plumage is decidedly rich.

Mr. C. N. Bement, a distinguished breeder, and writer on the subject of poultry, says of this fowl:

"This is a singular breed, which partakes of the common fowl and the India fowl, peculiar to the island of Java, where they are seldom reared but for fighting; and are said to be so furious, that they sometimes fight together till death of one or the other separates them. According to Willoughby, it carries its tail nearly like the turkey. The Sieur Feurnier, informs us, that one of this species was kept in Paris; it has, according to him, neither comb nor wattles; the head is smooth, like that of a pheasant. This fowl is very high on its legs; its tail is long and pointed, and the feathers of unequal length; and, in general, the color of the feathers is auburn, like the vulture. It is generally supposed the English game cock originated, or is a cross of, this variety."

The above quotation is a description of the wild Indian game, and not of the Java, except in color.

For the New England Farmer.

TURNIPS.

Mr. Editor:—I have read with interest, the numerous articles on turnips which have recently appeared in your valuable paper. There seems to be quite a difference of opinion among agriculturists respecting their value, compared with other crops.

Experience proves that animals do not thrive best on the most concentrated food, nor is such food most conducive to health in man or beast. A man would not long survive if fed upon sugar or venison alone, and a dog would not live six months if fed wholly upon fine wheat flour. Yet all admit these substances are highly nutritious.

The analysis of the turnip shows a large per cent. of water to the nutritive matter, but I believe it to be more valuable to feed with other fodder, than a strict chemical analysis shows it. A change of food is beneficial to stock, and in

winter, when animals cannot get green food, turnips are excellent to keep the stomach in tone, and give them an appetite for dry feed.

The different varieties of turnips vary in nutriment. The Swedish I consider best, but my experiments have been mostly with the English, which I have raised and fed for several years.

I frequently winter a part of my cattle upon corn fodder, straw and turnips, until the latter are fed out, when I use corn meal as a substitute for the turnip. As nearly as I can judge from the growth and appearance of the stock, (and I have observed them closely, to satisfy myself,) six bushels of fifty pounds turnips are equal to one bushel of corn, to feed with coarse fodder. When corn is worth one dollar to feed, I value turnips at one shilling per bushel. In many localities, ten bushels of turnips are more easily raised than one of corn. I have frequently raised good crops, at a trifling expense in cornfields where the worms had destroyed a part of the corn, and it was too late in the season to replant it, by sowing broadcast and cultivating and hoeing in the seed. JAMES R. WALKER.

Springfield, Vermont, 1859.

EFFECT OF GREEN RYE ON THE MILK OF COWS.

T. P. Shepard & Co. lately made the following statement to the Standing Committee of the Rhode Island Society for the Encouragement of Domestic Industry:

"On Thursday, Nov. 5th, we turned fifteen milch cows into a lot containing sixteen acres. Eight acres had been planted with corn this season, and harvested a few weeks before. Eight acres were sown with rye in September, which had come forward very fast, and commenced to joint. On Thursday and Friday the cows fed exclusively in the corn-field, gleaning the corn fodder and a few small ears of corn that remained upon the ground. During these two days there was but little increase in the milk, and no change in quality. On Saturday, Sunday, Monday and Tuesday, the cows fed in the rye field, and the quantity of milk was increased more than twenty per cent. On Saturday the milk had a slight unpleasant flavor, which increased, until Tuesday it was so offensive to the taste and smell, as to be wholly unfit for use. On Wednesday the cows were turned into the meadows, and on Wednesday evening the milk was perfectly sweet, and free from any unusual flavor. During these days the cows had no access to salt water, salt meadows or fresh bogs. There were no weeds in the rye field, and no more among the corn than is usual in a well cultivated field. The cows were as usual stabled at night and fed with clover hay."

REMARKS.—Our cows feed upon rye, not only without detriment, but with decided advantage. The land upon which it grows was plowed last September, and sowed to rye and grass seed. As soon as the rye was four or five inches high, we turned the cows upon it, and they have continued to keep it pretty well cropt. If it had been allowed to grow until it began to joint, and the cows had then been turned upon it, we have no doubt they would have surfeited themselves and quite likely some unpleasant flavor would have been imparted to the milk.

That is not the way to treat cows with such food; it is no more rational than it would be to set fifteen hungry children down to make a dinner upon the richest pudding or cake.

Farmers must exercise a good sound judgment in every department of their labor; that is the only safe guide for them.

NURSLING VESPERS.

BY REV. J. E. RANKIN.

A row of little faces by the bed,
A row of little hands upon the spread,
A row of little roguish eyes all closed,
A row of little naked feet exposed.

A gentle mother leads them in their praise,
Teaching their feet, to tread the heavenly ways,
And takes this lull, in childhood's tiny tide,
The little errors of the day to chide.

No lovelier sight, this side of heaven is seen,
And angels hover o'er the group serene;
Instead of odors in a censer swung,
There floats the fragrance of an infant's tongue.

Then tumbling headlong into waiting beds,
Beneath the sheets, they hide their timid heads,
Till slumber steals away their idle fears,
And, like a peeping bud, each little face appears.

All dressed like angels, in their gowns of white,
They're wafted to the skies, in dreams of night,
And heaven will sparkle in their eyes at morn,
And stolen graces, all their ways adorn.

THE AMERICAN HOME GARDEN. Being principles and rules for the Culture of Vegetables, Fruits, Flowers and Shrubbery. To which are added brief notes on Farm Crops, with a table of their average product and chemical constituents. By ALEXANDER WATSON. Illustrated. Harper & Brothers, New York. A. Williams & Co., Boston.

This is a neatly-printed volume of 500 pp., on fine, white paper, and large, clear type,—capital recommendation to any book. The opening of the book gives a plan for a garden, aspect, fencing, protection, mechanical preparation of various soils, draining, plowing, &c., and then passes on, touching upon every possible topic and manipulation necessary in the management of an *American Home Garden.*

There are ten thousand families in New England to whom this book, if read and practiced upon, would save annually more than ten times its cost. It is handsomely got up, and has the great merit of having a good index. We do not mean to say that it contains all the amateur might want, but that it is admirably calculated to benefit the *American Home Gardeners.*

A USEFUL FACT.—In peeling onions, put a large needle in the mouth, half in and half out. The needle attracts the oily juice of the bulb, and any number may be peeled without affecting the eyes.—*Prairie Farmer.*

For the New England Farmer.

MENTAL ACTIVITY AMONG FARMERS.

The human mind was made for action, and is active, to a greater or less degree. From the utmost imbecility of infancy, there awaits it unlimited power, expansion and ennoblement, attainable by gradual steps of progress. Not by flights or leaps, but by toiling self-culture, does it rise from the mists and darkness of ignorance to the elevation and clearer light of knowledge. On its own self will depend its progress and development. The obscurest son of poverty has within him the germs of greatness and happiness, and that will for application which oft takes the precedence of genius, is of more value than Crœsian wealth, with all its advantages and luxuries. Mind, then, in its normal and healthy condition, is capable of continual progress, which should be sought by earnest effort.

Whether the mind or the heart, thinking or feeling, is entitled to greater regard, as more important, is a question long agitated and variously decided by different individuals. But the candid and enlightened will admit that the mind is of equal worth, and should therefore receive equal attention. As an illustration of the baneful effects of an opposite course, we have only to look at certain Christians who make the cultivation of the religious sensibilities the main object. Their mental capacity remains about the same as twenty years ago, and so connected by sympathetic bonds are the mind and heart, that the religious feelings of the latter, are often paralyzed and bound in superstition by the neglect and consequent narrowness of the former. Bigotry follows, as a natural consequence, which to all is obnoxious, and injurious to the free exercise of holy influences.

Considering, then, the nature of mind as progressive, and the study of all to allow it development by proper action, what degree of mental activity as favoring this do we find among the farming population? Many writers and orators, particularly on certain festive occasions, would make the occupation of the farmer very intellectual. They parade the names of nearly all the sciences, and very logically prove them connected with it. That they are, may be true. It is also true that some of the most practical and successful farmers have no knowledge of these sciences, except of a few facts and some general principles. Now, however much agricultural writers and orators may flatter the vanity of the farming community in regard to their "glorious occupation," and what it may be, still the facts regarding their present condition remain as proofs that the occupation is not wholly scientific, and that farmers do not yet rank with professional men in point of intellectual culture. A farmer in our country towns can get along, and be successful to a certain degree, with a practical knowledge of his business, as well as can mechanics with theirs; admitting, however, that science may be, and often is, called into the aid of both, and that with the most happy results. But this fact is sufficient to our present purpose, that farmers can succeed without extraordinary, and even with meagre mental acquirements and advantages. This fact that they can, is indisputably established by the fact that they do. Still it may be said that farmers rank as high or higher in intelligence, sound judgment and general information than any other laboring class. There are many things in their occupation favoring this. Their judgment, in particular, is called into almost daily exercise, and thus strengthens and matures. But as for a real desire for mental culture and development, resulting in earnest mental effort, farmers as a class, to say the least, are much below professional men; though they may rank as high or higher than other so-called laboring classes. But aside from these comparisons, their mental culture and development is much less than from the importance and worth of mind, duty plainly indicates. And as one reason why their minds remain so dormant, their occupation not absolutely requiring extensive mental acquirements, their minds reach not that state of mental culture in preparation for business, which awakens earnest and lasting desire for knowledge. Consequently, if they have sufficient business tact and practical information for success, they remain satisfied. Some minds among farmers, as among all classes, seem ever to have that desire, or to have had it awakened, by the requisite degree of mental training; and they reach more elevated positions, and rank as leaders. Still, it may be questioned by certain persons, whether the farmer's occupation is consistent with the possession and indulgence of a literary taste; whether the continual cultivation of the intellect is expedient, or even justifiable, in connexion with manual labor on the farm. But with what assurance can one argue that a farmer's knowledge and labor should be limited to his farm, and that his study should embrace only such subjects as are intimately connected with it, and directly subserve practical skill. Lord Bacon says, "Studies serve for delight, for ornament and for ability. Their chief use for delight is in privateness and retiring; for ornament is in discourse; and for ability is in the judgment and disposition of business." Now it cannot be denied but that farmers, generally, have great facilities in leisure and retirement for mental improvement. And we doubt whether there is any class of men, taking these facts into consideration, with the fact that their physical exercise keeps the mind fresh, and their relish for mental food ever keen, that may experience more delight and real happiness in studies, than farmers. For ornament in discourse, many, and perhaps the general class, are deficient. Even in our most prominent agricultural papers, where on one page will be glorification essays on farming and on farmers, on another, will be anecdotes or stories in which one of the characters will be a farmer, and where roughness and verdancy will be fully displayed in the ideas and language imputed to him. And had it not somewhat of a foundation in truth, it would not be sanctioned by public opinion. Again, if studies are useful in the judgment and disposition of business, it is certainly a consideration also worthy of their commendation. The farm would furnish for it ample scope, and return satisfactory reward.

One reason why studies are contemned by practical men is, that those who use them are too apt to spend time over them to the neglect of their business. This the same writer calls sloth. A man must use judgment here, as elsewhere, in

regulating his time and attention to his wants and pleasures. He who does this rightly, does much toward forming his character to a perfect sphere; the true object of man's life. Besides, in perfect physical development, manual exercise on the farm, combined with proper intellectual culture, would furnish examples more noble than perhaps any other calling. Among farmers at present, it is not so universally the rule as among merchants, and one or two other classes.

One of the great objections urged against farming is the lack of mental activity—that the mind lies so dormant. Admitting that the objection has its origin in truth, we confidently assert that sluggishness or emptiness of mind is not at all necessarily connected with farming. The fault, from causes we have mentioned, and which exist unreasonably and unnecessarily, is with the farmers themselves.

To recapitulate, our points are briefly these. Every individual has an immortal element within, called the mind. This mind is intended, and thereby fitted, for continual culture and development; consequently, it is duty to comply with these, being the requirements of God. That for various reasons, the minds of many among the class called farmers lie in too dormant a state. That they have no sufficient and warrantable reasons for this, and that the pleasures and advantages they would derive from mental culture would be sufficient, and more than sufficient, for the required labor and time. And that to many the great objection to farming—deficiency of mental activity—is not really attributable to farming, but to farmers; and that this, with many other objections, would be obviated by the course here advocated.

Life is not for inaction, quiet repose and the gratification of animalism. Beneath the pathway of every man lie the springs of happiness, and he must patiently dig for them, who would refresh his soul with their cooling waters.

Wayland, Mass. L. H. SHERMAN.

For the New England Farmer.

HUNGARIAN GRASS—HUBBARD SQUASH.

MR. EDITOR:—As considerable interest seems to be felt in regard to the Hungarian grass, I will give the result of a trial of it made last year by Moses Parkhurst, in Paxton, about eight miles west of Worcester. On the 21st of June, he sowed two-fifths of a pint of seed on a little less than four rods of ground; on the 26th of July it was headed out; on the 21st of August I saw the piece, and cut up some stalks which measured five feet high. The piece would average about three or three and one-half feet high; the heads had begun to "turn" some, at this time. Enclosed I send you one cut at that time. It was cut the 1st of September, and twenty-eight quarts of seed were threshed from it, weighing at the rate of fifty-two pounds to the bushel. The soil was a good loam, such as would be considered good corn land. I am not able to state its value for fodder, but see no reason why it should not be a valuable crop.

The Hubbard squash being somewhat noted, I will state that last year I sent to Mr. J. J. H. Gregory for some seed, and raised upwards of twenty, about half of which appeared to be the Hubbard, and the others gave unquestionable evidence that their predecessors had been quite familiar with the marrow squash. Most of the pure ones have been very good; some of them have had quite a strong, rank flavor, which detracted very much from their merits. Some of them, cooked in the fall, were as dry and mealy as a potato, so dry that milk had to be put with it to get it through the sieve. It does not require half the sweetening of the common marrow squash. I have some in my cellar now, though somewhat decayed. They have kept about two months longer than the marrow.

V. P. PARKHURST.

Templeton, April 27, 1859.

REMARKS.—We have received some half-dozen samples of Hungarian grass seed, all corresponding with each other; also, a sample of the grass itself, from which we have threshed the seed, and found it agreeing with the samples of seed. None of these are like the grass you were kind enough to send us,—nor does it bear any special resemblance to them. We think your specimen is not the true Hungarian grass.

For the New England Farmer.

REMEDY FOR KICKING COWS.

DEAR FARMER:—I do not much like your correspondents' (A. F. Adams and S. B. Hartwell) method of treating kicking cows, nor do I believe such means effectual or necessary. They are dangerous experiments—much more likely to spoil than to reform.

A number of years' experience with a large number of cows and heifers, has fully convinced me that *kindness* is the only safe application to make to kicking kine, as well as to most other vicious animals.

There is always some cause for cows kicking to be found either in their condition, or in the mode of treatment pursued by those having charge of them. This should be sought after ti' found, and then the proper remedy applied.

Heifers not unfrequently kick, and sometimes menacingly use their horns also, at the outset of their cow-life, from fear or fright. Some wild and furious boy or man is set to milk them for the first time, seizing their tender and unaccustomed teats with rough and uncautious hands; the timid creature does just what nature suggests, and what we should expect, viz.: kicks the blockhead over, and our decision is, "served him right."

Now comes a critical point. If kindness and forbearance be now substituted for a beating, the cow may be saved—otherwise she is lost almost to a certainty. A little timely caution, however, may save all trouble and risk. Let the milker take with him—or her, (and females are uniformly better hands at milking than males,) to the stable some choice bit of food, and feed it to the frightened and trembling brute from the hand; pat and rub her carefully about the head and shoulders, talking soothingly and kindly to her till she shall make your acquaintance, which she will soon do, and manifest it by signs which

you cannot mistake. Then approach and handle with care, her teats and udder—see if they are swollen or sore, which will often be found to be the case, and if so bathe them long and patiently with soapsuds, applying a little oil or greese to any chaps or cracks that may be found, and then she is in readiness for a very gentle attempt at milking.

Don't hurry, nor be in any perturbation from fear of being injured, but sit up closely, and continue to talk low and kindly to your subject; be very cautious not to hurt or frighten her in the least, and ten to one your task will be accomplished without the movement of a single hoof.

This process continued, will tame and subdue the wildest and most obstinate heifer to a gentle and loving cow, and I have seen them exhibit a degree of affection which intelligence might copy with profit.

If such, or similar treatment, will not tame the heifers or reform the cow, let them be fattened for the shambles, and others more tractable take their places, rather than subject them to the rope, strap, chain bull-ring, club, milking stool, or any such barbarous inflictions.

Springfield, Vt. E. INGHAM.

For the New England Farmer.

BEE-HIVES.

I have put off re-writing the article on bee-hives that I mailed to your address some months since, hoping that it might turn up. Not seeing it in the *Farmer*, I suppose the little money enclosed for the advertisement tempted some thief among the mails, who took the money and destroyed the article. The article referred to, was in reply to "Norfolk," on a charge of inconsistency, wherein he accuses me of "Preaching what I do not practice. That my instructions are not for myself," &c. This, as far as myself is concerned, amounts to but little, but perhaps some readers of the *Farmer* might wish to know as well as "Norfolk," what right I have to recommend one hive, and afterwards use another. I intend to make a full confession, and if it does not fully exculpate me from blame, it may somewhat modify their feelings. I would say first, that I cannot be charged with altering some simple thing about a bee-hive, then obtaining a patent, and charging all a few dollars, who can be persuaded to use it. All that the bee needs in a state of nature, is a cavity suitable for rearing her broods, and depositing her stores for winter. All that man requires in addition, is an apartment that can be removed with surplus stores. A single box in the plainest form was used for twenty-five years, and nothing found to surpass it in convenience, safety, economy or profit. Believing it the *best* for the apiarian of any class, I recommended no other in the work alluded to by "Norfolk." And now for the sake of being consistent, must I adhere to this throughout, and deny myself the advantages that may arise from the minds of others? I think I would rather risk his charge of inconsistency. "The best way is as good as any," and the moment that a man settles down into the belief that he has arrived at the summit of improvement, there is no further advancement for him. There is a vast difference in the ability to discriminate between what *is* an improvement, and what is *said* to be.

The Rev. L. L. Langstroth presented me with the movable frame, or movable comb-hive; I saw at once, that I could, if I chose, still use the simple box with the addition of the frames, and I could take out and return to the hive all the combs without injury to a single bee. I transferred bees and combs into some of these in the spring of '56. In '57 and '58, I introduced new swarms in a large number, and have found the following advantages.

Most apirists know that their stocks are quite liable in some seasons to overswarm, and have witnessed with regret, swarms too small to be worth anything alone, continue to issue till the parent stock was reduced too much, to contend successfully with the worms. And as a consequence, both old and new colonies would be lost. With the help of the frames, such ruinous operations can be prevented. A few days after the first, and just before the second swarm, the combs can be examined, and all the queen-cells removed but one. When the queen in that matures, it finds no opposition—quietly remains, and soon becomes the mother in the old stock. I will presume that the natural history relative to this point is understood. This operation cannot be performed with a hive, in which the combs are fast.

Artificial swarms are successfully made with but very little trouble, as follows. When most of the bees are out in the middle of the day, taking out the frames, looking them over carefully till the queen is found, when the frame containing her is put in an empty hive, setting that on the old stand; and putting the old stock in a new place. Enough bees will return to the old queen to make the swarm. If done at the proper season, enough brood will be in the combs, together with those just matured, to keep the old stock sufficiently strong. If no queen-cells about finished are present in the stock, it is nearly always practical to procure one from some other, with a queen nearly mature, to introduce, and thereby gain several days in breeding.

If, from any cause, a stock or swarm is weak, but otherwise healthy, it may be assisted by some strong colony, merely by taking a comb or two filled with brood, and giving it to the weak one. In a few days, the maturing brood will add materially to its strength. In the same way, their winter stores may be equalized in the fall; some stocks will have too much, and others too little. The changing of a few combs will make all right, and benefit all.

Nature had to provide drones for isolated colonies, and when we bring together a large number, this instinct for rearing drones is retained, and each produces its number; when in reality there is no necessity in an apiary of fifty or a hundred stocks for any more drones than two or three colonies might produce. So many drones cannot be reared without much labor of the working bees, and cannot be supported afterwards without a great consumption of honey. Several patents have been granted, the chief merit of which is a trap to catch and destroy them. But with the movable combs, we can take the matter into our own hands, and say in the spring whether we will have thirty, three hundred, or three

thousand, reared in any stock. It is done by removing the drone comb, or any part of it, and substituting worker combs instead. Without these cells the bees cannot rear drones if they would. It is now pretty well demonstrated, that the eggs of a healthy queen are all alike, and the sex of the future bee depends on the cell in which it is deposited. If every drone we have reared was a worker, it would not only support itself, but would be likely to add to the common stores. The advantages would be, in having just enough.

The size of the hive can be graduated to suit the wants of any colony. If there are too many combs to be properly protected from the moth, a part may be taken away, and returned as needed.

The loss of queens in most apiaries is a serious damage. Except within the first few days after its occurrence, there is no further means of ascertaining this fact, short of several weeks; by which time it is often too late to save the stock. But with the frames it can be ascertained at any time; and after the young queen commences her maternal duties, only a minute or two is required to examine the brood combs; any cells containing eggs or brood indicate her presence. If she is lost, another can be provided in time to save the stock.

These are some, but not all the advantages that I have found in the movable combs. Suppose that I had recommended this movable comb hive immediately on being satisfied that I could make it profitable; and then, as with many other beautiful theories, failed in practice. I should have been worse off, than to be accused of "preaching what I did not practice." Prudence should prevent any one from recommending an improvement based on theory alone. "Consistency" dictates a different course. I have now used these frames three summers, and know from experience what I say respecting them. Having found them beneficial for myself, I think they might be so to others, and consider it a duty to give the public *all* the knowledge I possess in bee culture. I have, therefore, added an appendix to my treatise, giving directions for making and using these frames, an advertisement of which is enclosed.

"Norfolk" calls the "movable comb hive, unwieldly." I have seen some that I think are so. But I apprehend this to be a matter of taste; as I make the hive, there will be no complaint in this respect. The principal of the movable combs is the point that I consider constitutes the advantage.

In the controversy about the triangular guide, I have but little interest, further than I should be pleased to have all admit that it was public property. Whoever succeeds in establishing a claim, should give us something a little more reliable—something that would give us straight combs with certainty; because now a colony will occasionally make their combs crooked, and are of no value as movable combs, on that account.

I have given what to me are valuable points in the movable comb hive, and the reasons why they are so. Now will "Norfolk," "Clark," or any one, give us through the *Farmer* as minute an account of the "Union hive"—in what consists its superiority? It will hardly be satisfactory to say it is better, without pointing out what particular makes it so. I am willing to adopt anything that is shown superior to what I already possess. My likes and dislikes are goverened by what appears the utility of the thing.

In criticisms on this subject, it is best to avoid personalities. I shall consider I am not called upon to answer anything of the kind.

St. Johnsville, N. Y. M. QUINBY.

For the New England Farmer.

CATTLE AND HORSES EATING BOARDS AND BONES.

A "Vermont Subscriber" asks "the reason why his cattle eat old boards and bones?" I presume the reason is, because he has kept them too close yarded, and has not let them get to the fresh earth during the winter, so that they could have the privilege to eat dirt, grass, shrubs, &c., as is natural to cattle and horses. After cattle have run out and grazed all summer, and then taken them up to hay, dry fodder and close confinement, they soon begin to hanker for a fresh bite of grass, or to lick the ground, and if you let them out, it is not uncommon for a creature to eat a pint or even a quart of fresh earth at a time. When I have been plowing in the spring I have had oxen want to stop and lick a mellow looking spot of earth that had been turned up by the previous furrow. I always let them stop and eat all they want. Cattle and horses should be let to run out on a field or pasture occasionally, during the winter, to gnaw the ground and grass roots, and if the snow covers the ground for a long time together, they should be supplied with a few shovels ful of fresh earth from some clean place under the barn, or from the roots of an old decayed tree, if it can be had. I never knew cattle to gnaw the fence or their cribs in the summer when they run out, or even when they run at large in the winter, and if "Subscriber's" cattle have had access to the ground during the winter, and still gnaw boards, &c., they are unlike any cattle that I ever saw; will he please tell us about this? It is the same with the horse; I often hear people complain of their horses gnawing their cribs.

Colts are raised in the country, and graze in the pastures for more than half the year for their living, and when they are old enough to be put into stables and put to close confinement and hard work, and especially when they are brought to the city, they are changed from their native element of grazing, and rolling and stretching themselves out at full length on the ground to rest, and as the good people of old longed for the leeks and onions of Egypt, so they long and hanker for their old grazing pastures of the country, and in their faint stomach-hankerings do the next best thing, and gnaw the cribs, and every carriage and sleigh back they stand next to.

I purchased a five-year old horse six years ago, that had been brought from Vermont one year before, and in three weeks after I purchased him, he had gnawed through the bottom of a two inch plank crib, and before I discovered that he was a cribber, for my man took care of him. After this I put him out in a little yard two or three times a week, and let him pick some grass and ground, and roll for an hour at a time, if I could not spare

his services longer. I kept him two years, and after six or eight weeks he scarcely scarred his crib by biting it.

Four years ago I bought a five-year old mare, that had been brought from New Hampshire and stabled in Boston six months for sale. When I got her she would eat an apple tree limb as long and large as an ox goad, and I saw her strip a piece off a sleigh back, eighteen inches long and as thick as my thumb, and eat it, paint, varnish and all. I led her out two or three times a week, and held her by the halter while she rolled, and then hitched her to the fence, for I had no better chance, and treated her to as much old frozen grass and ground as she could reach. It entirely cured her gnawing in two weeks. So I have treated four horses within six years with perfect success, and I think if stable keepers should provide a soft place, 30 feet square if they could not get larger, for their horses to roll, three or four times a week, (for it is natural to a horse to roll and it rests them when tired,) and keep a barrel of fresh earth for them to eat when they want, their horses would be much more healthy, and they would have no cribbers.

Blinkers and check reins also deserve an article, but from some one more capable of expressing his thoughts on paper than

Malden, Mass. A. S. HALL.

REMARKS.—Your remarks, friend Hall, are practical, and will undoubtedly be extensively useful. Now give us some as good on those useless and cruel tormentors, blinkers and check reins, and you will do the community a good service.

DRAINAGE---WHEAT-GROWING---UNIVERSAL PLOW.

LETTER FROM LEVI BARTLETT, OF WARNER, N. H.

Warner, May 11, 1859.

MY DEAR SIR:—With much satisfaction I have perused your new work on "Drainage." Such a book was greatly needed, and I hope it may be largely patronized by our New Hampshire farmers.

It is now more than twenty years since I commenced underdraining my naturally wet farm, and I have done more or less at it every year, during that period. I have mostly used stone for the purpose, but in some instances they have failed by the burrowing of field mice and moles. I trust the time is not far distant when drain tile can be had at reasonable cost by the farmers in the interior of our State. There is a vast amount of valuable land in the State that needs draining, which, if properly done, would add tens of thousands of dollars to the agricultural interests of "the old Granite State."

I have succeeded in growing fine crops of winter wheat on underdrained land. From five years' experience in growing winter wheat I am full in the faith that it can be successfully grown in New England. There was a large amount sown in this town, last fall, and it is looking splendidly now. But to grow wheat successfully here, our farmers must better understand the true principles of preparing and manuring the land for the crop.

The improvement in agricultural implements within the past twenty-five years is truly astonishing. It is mere pastime to labor with these improved implements, compared with that of wielding the old-fashioned tools used by our fathers. I have recently obtained one of Nourse, Mason & Co.'s "Universal Plows," with its series of mould-boards. I think it must soon become a general favorite with our progressive farmers. I am just getting ready to give it a fair trial. As yet I have only used it as a stubble plow, and find it A. No. 1. The team is ready to hitch on to my new plow, and I must exchange the pen for the plow-handles.

Yours, most respectfully,

LEVI BARTLETT.

HON. H. F. FRENCH, EXETER, N. H.

For the New England Farmer.

CRACKING OF APPLE TREES.

MR. EDITOR:—Your correspondent, S. D. M., of Mansfield, states that he has lost a number of apple trees the last winter, by the bursting and splitting of the bark, and asks if there is any remedy. I am afraid there is none but to dig up the trees and replace them. My own loss has been severe. I had two rows of fine, thrifty apple trees, planted in the spring of 1850. They had grown vigorously, were from twelve to eighteen inches in circumference, and had commenced bearing. Of these, I have lost ten, that I certainly would not have sold for two hundred dollars. One pair, especially, of Baldwins, so handsome as to be the admiration of all my visitors, was well worth a hundred dollars.

I discovered the injury some time in January; the bark was split from the lower branches to the ground, some five or six feet. The split was sometimes on one side of the tree and sometimes on the other; and before I finally dug them up, this spring, I satisfied myself that there was no hope of saving the trees, for I was able to pass my hands under the bark, on either side, and meet my fingers behind. One which stood near the barn cellar will survive, the split being only about eighteen inches long and the rest of the bark sound.

What was the cause of this mischief? These trees grew on a heavy, strong loam, resting on a hard, firm subsoil, retentive of moisture. The last summer was cold and wet, followed by a very mild and pleasant fall. So remarkably mild was the season, that I had dahlias in flower until November 10th, or three weeks later than ever before, and on that day gathered from my garden bouquets of flowers. The consequence was, the trees made a late and vigorous growth, and had not matured and ripened their wood. On the night of the 10th of November the temperature changed suddenly; on the morning of the 11th the ground was frozen hard, and ice made in small pools, strong enough to bear a man. Two days afterwards, on the 13th, my son was skating on a neighboring pond! The change from a summer to a winter temperature, so sudden and almost instantaneous, caught the trees full of sap, which froze and burst the bark as soon as milder weather thawed it. This, in my opinion, is the cause of the trouble; if any of your correspondents have a different solution, I hope to hear it.

The lesson I draw, is the importance of creating a dry soil by draining. Had this land been as thoroughly drained last year as it is now, I think I should have saved my trees. Of a large number of pear trees, and a few other apple trees, growing on similar soil, *but thoroughly underdrained*, I have lost none. C. A. HEWINS.

West Roxbury, May, 1859.

REMARKS.—The loss of which our correspondent speaks, to us would be a serious one. Money in any amount, would scarcely pay us for trees planted and reared by our own hands. We have had several fine apple trees badly cracked, but they have all lived, and appear to be doing well. The true mode of preventing it is, undoubtedly, as Mr. HEWINS suggests, underdraining.

TRANSACTIONS OF THE ESSEX AGRICULTURAL SOCIETY.

This is quite a volume, and one of the most interesting and valuable that has been issued during the past year. Eloquence and poetry have contributed their charms to add to its value. The addresses of Dr. LORING and EDWARD EVERETT are both eloquent and instructive, and Giles Corey's second dream is full of humor and wit. Then follows an account of the bequest of the Treadwell farm, and the arrangements for its management which have been made by the Society, and the contract with Mr. Brown, the farmer who has taken it in charge. We shall watch the operations on this farm with much interest. After these, commences the Report proper, with a paper of great value upon fruit culture, by J. M. IVES. Whatever he says upon this subject is reliable and instructive. He is entitled to speak, for by long experience and critical observation, he has acquired much knowledge in this department.

The next paper is a beautiful essay upon a beautiful subject—Flowers. The display of flowers was an attractive feature at the Exhibition. The 160 varieties of dahlies, with their 300 blossoms, was an exhibition by itself well worthy of a visit, and we think the $8 premium well bestowed. There were $40 awarded for flowers, and their display contributed more to the promotion of taste and refinement, than the exhibition of fast women, or fast horses, on any trotting course in the State. The letter of N. PAGE, on the robin, as a devastator of fruit, is racy and entertaining.

There is a valuable report by G. P. SARGENT, on the comparative value of crops as food for cattle, well worth a careful study, and shows much research upon an important subject. The reports of Dr. LORING and Mr. ROGERS, upon milch cows, are drawn up with much care, and are model reports. Liberal premiums were awarded for stallions, breed mares and farm and draft horses. Trotters and roadsters do not seem to have been admitted to the lists, not being considered farm stock. Sixteen premiums were awarded for plowing. Good plowing is always considered worthy of encouragement by the judicious managers of this Society. We are sorry to see a movement to abolish plowing-matches, though we confess that they need some radical changes.

There are valuable statements respecting the work and construction of *mowing-machines*, a subject of much importance to farmers who feel the need of such machines, and are unable to decide which is the best. There is an interesting paper upon *Poultry*, by JAMES J. H. GREGORY, and a valuable paper upon *Manures*, by WM. D. NORTHEND, which contain much important instruction. The statement by SAMUEL RAYMOND, about his farm, will amply repay a careful perusal. Those on *underdraining* and the *reclaiming wet meadows*, show that these important subjects are receiving due encouragement in Essex.

The statements on the various subjects to which we have referred are carefully prepared. There are several of them which we should be glad to analyze, and point out their excellences. No awards are made by the committees of this Society without careful statements. This is as it should be. For these statements, when properly prepared, are really the most valuable part of the reports, and no premium should be awarded without them. The statement should be considered a part of the object for which the premium is awarded.

The volume closes with a list of the books contained in the library belonging to this Society, which is much the most valuable library belonging to any county society in the State. This library has contributed very much to make this Society what it is,—one of the most flourishing, harmonious and succcessful societies in the State.

For the New England Farmer.

DISEASES OF HORSES.

MR. EDITOR:—The 11th day of January last was the coldest day I ever experienced. A day or two after, I discovered that my young horse was diseased, and supposed it was caused by the severity of the weather. Upon examination I found the disease was in her spine, at its junction with the hips, as there she was very sensitive.

It is not necessary for me to describe the condition she was then in, for her disease was strikingly similar to that described by your correspondent, W. D. Searl; she continued to grow worse until her hind limbs were well nigh useless.

Of the nature of the horse and of his diseases I am totally ignorant, and having no one near

me capable of giving instruction, my only resort was to the small stock of common sense I possess. My judgment dictated a different course from that pursued by Mr. S. I neither took blood nor gave physic, but thinking that strength was better than weakness, I gave her a more generous diet—applied beef brine to the weak part often, and a stiff brush, and kept her covered with a warm blanket, (she had never been blanketed.) This treatment proved salutary, and she is now as well as ever. So sick was this beast at one time, it was thought she could not live 48 hours.

West Windham, N. H., April 20, 1859.

MARKET DAY AT NORTH ANDOVER.

The second of the market days or agricultural exchanges established by the Essex County Agricultural Society, was held on Tuesday at North Andover, about two miles from Lawrence. In point of attendance and extent of sales, of course, it was not so large as the market day at South Danvers a fortnight since. Considering the chilliness of the day, the busy season, and the fact that this was a first attempt at North Andover, the fair was as successful as could have been expected. In the middle of the afternoon, in the height of the bargaining and sales, some rain fell, which, of course, threw a damper on everything. The pens of the Society were erected on an elevation near the depot, and there were three or four hundred persons present most of the time. The entries of stock with the Secretary consisted of 22 horses, 95 swine, of different sizes, including pigs, 126 horned cattle, including oxen, steers, heifers, cows, calves and the like, about a dozen sheep and a number of coops of fowls. There were several good stallions brought forward for exhibition by their owners, and among the fat cattle some excellent specimens, including a pair weighing 3190 lbs., belonging to J. H. Barker, of North Andover; a pair weighing 3088, belonging to William Foster, of North Andover, and a yoke weighing 3360, to Dean Andrews, of East Boxford. There was one fat steer five years old, weighing 2400 lbs., which belonged to John Barker, of North Andover. In the matter of fat cattle the show was excellent, including no less than 14 yoke.

Among the private sales, a yoke of fat cattle belonging to J. French, of Danville, N. H., and weighing 3380 lbs., were sold for 8¼ cts. per lb.; two fat cows, J. P. Putnam, Andover, 7¾; two heifers, for $35; a sheep and lambs for $12; one calf and sheep for $8, and there were some other private sales which did not become known as to price, and were to drovers. Some shoats for $4,50 each.

The sales at auction were more numerous. A yoke of oxen was sold to J. W. Smith, for $52: another yoke to some person for $100; a young bull for $9; a horse for $18; a cow for $20, to Mr. Dame; a cow and calf to Seth Chase, for $32; a horse belonging to Mrs. Sargeant, for $44; another for $41; an ox-cart for $30; another for $15; a wagon for $63; horse-cart for $11. There were in all some thirty sales at auction, but in many of these cases the animals were bought in by the owners, to save loss.

There were several wagon-loads of vegetables on sale, and that was all. Much attention was attracted by the agricultural implements exhibited on the ground, including a horse-hoe, some mowers and reapers, and the like.

The Board of Trustees held a meeting at the engine-house at 10 o'clock. Dr. Robinson, of West Newbury, presided, and Allen W. Dodge, Esq., of Hamilton, was secretary.

Mr. W. R. Putnam, of Danvers, made a well-founded report showing the great success of the fair at South Danvers a fortnight since. Reports were made in favor of holding market days as follows:

At Newburyport on the second Tuesdays of April and October; the fair in October will coincide with the annual fair of the Horticultural Society at that place, under the presidency of Dr. Kelly.

At South Danvers on the 3d Tuesday of October, annually.

At Georgetown on the 3d Tuesday in June, when will occur the annual meeting of the Board of Trustees of the Essex County Agricultural Society.

At North Andover, annually, on the 2d Tuesday of September.

At Lawrence on the 4th Tuesday of October.

Committees of Arrangements for the different market days were thus appointed:

At Lawrence and North Andover, J. Kittredge, of North Andover, H. K. Oliver, of Lawrence, J. H. Morse, of Lawrence, J. O. Loring and Otis Bailey, of North Andover.

At Newburyport, Major Ben: Perley Poore, Dr. Robinson, of West Newbury, Enoch S. Williams, of Newburyport, Paul Titcomb, of Newbury, Col. Colman, of Newburyport.

At Georgetown, Major Ben: Perley Poore, of Newbury, Moses Tenny, S. Little, George W. Boynton and Col. Nelson, of Georgetown, and D. S. Caldwell, of Newbury.—*Traveller.*

For the New England Farmer.

PREPARING MEADOWS FOR CRANBERRIES.

MR. BROWN:—I noticed in the *N. E. Farmer* for April 16th an article on raising cranberries which did not correspond with my views on the subject.

Your plan of covering the ground with sand is, it seems to me, too expensive, when the ground can be prepared as well, at less cost. My plan, (and I have had some experience,) is to take a piece of swamp, or meadow, which can be flowed, and keep it flowed for three years, which will be sufficient to kill the grass and bushes. The land is then in an excellent condition to set the vines, soft and mellow. The vines should be set near together, the nearer the better. The brush need not be removed from the meadow, as the vines will climb upon it, and in a few years it will rot and sink. I think this a much better way than sanding the ground. A layer of sand four inches thick, at 10 cents per yard, would cost $56 per acre.

As the land which is best fitted for cranberry culture is, usually, the poorest for other purposes, and as good land for cranberries can be pur-

chased for from $5 to $10 per acre, it seems to me that when they can be brought into good condition in three years, by water, at very little expense, it is folly to expend $50 per acre to hasten the growth two years. Besides, it is usually considered here that the deep muck of swamps is more favorable for the growth of cranberries than sand.

Land for cranberries, it is almost indispensable to have plowed in winter; in fact, their cultivation, where the land is not flowed, will always be attended by trouble and considerable expense, as the frost is sure to throw them out of the ground in winter.

I should like to inquire if anything can be done to prevent the frost injuring the berry? Would peat, old hay and brush, burnt in the meadow during frosty nights, save the berries?

ADDISON FLINT.

North Reading, May, 1859.

P. S.—Since writing the above I have seen a query in the *Farmer* in regard to the time of setting cranberries.

In answer to that I would say that experience has taught me that October is the best season to set vines, if they are to be covered with water; otherwise, May. A. F.

REMARKS.—MR. Flint is one of the most successful cranberry producers in our knowledge. We have visited his meadows, and found them exceedingly fruitful, and the fruit of the finest kind.

When we spoke of covering land with sand, we intended to refer only to small patches sufficient to raise a supply for a single family's use. When a sand bank is directly on the margin of the meadow, however, the reclamation may sometimes be profitably made in this way.

For the New England Farmer.

GUANO ON ONIONS.

MR. EDITOR:—In the *N. E. Farmer* for April 23d, I saw a communication from "South Danvers." He says, "my neighbors wish to know something more about Mr. Emerson's discovery whereby he received a good crop of onions." And yet he says those same neighbors know every rope in the ship. No one can tell them anything about onions, &c. I only stated a fact that passed under my own observation, not to instruct people who know every rope in the ship, who cannot learn anything new, because they know every thing about it. For such people are beyond being benefited by any teaching.

I wrote it for the benefit of those who were not perfect, who, like myself, like to read the experiments of others, and profit by them, or, at least, try such as may benefit them.

I stated that I noticed that my onions were wilting; I should think one-third were down. I examined the wilted ones and found a maggot in the stalk, just above the onion. I sprinkled on a good coat of guano, and no more died, but the two-thirds grew finely. Whether all died that would have died, if I had not applied the guano, I could not tell. I supposed I should have lost them all, or nearly all, if I had not applied the guano, as I had in years before.

That trial was in 1857. In 1858 I applied the guano in season and had no trouble with the maggot. They might not have troubled me if I had not used the guano. I do not know every rope in the ship. I raise very few onions—just a small bed for family use. Never raised 100 bushels in my life, and most likely never shall.

I sprinkled the guano on the onions, probably at the rate of 400 or 500 lbs. to the acre. I was satisfied with the result, and shall try it again.

ED. EMERSON.

Hollis, N. H., April 29, 1859.

EXTRACTS AND REPLIES.

BEET SUGAR, AND PAPER FROM BEETS.

I was pleased to see the sensible article from the pen of your intelligent correspondent, Mr. Cruickshank, in the *Farmer* of May 7, on the value and use of beets for making sugar and paper. I have often thought, as I have been through a pretty thorough school of mechanics, and now a farmer, that if I had the capital, I would go to France and see the thing done, of making beets into sugar and paper, and then start it here. I am quite sure that there is no place where there is a greater per centage of sugar in the beet, and but few where it is so large, as in the free, sandy soils of Plymouth county. I have not a doubt it would be a paying business, combining Yankee ingenuity with French experience.

Please keep the "ball in motion" until capitalists can see that they can make money in producing clean sugar for our own use, sugar that has not been through the careless, slatternly hands of persons who have no interest in making it or keeping it clean. CALEB BATES.

Kingston, May 9, 1859.

GRASS ROOTS AND "SWARD WORMS."

As your paper is made a medium through which the ignorant can display their ignorance and the learned impart their knowledge to others, I wish to make a little inquiry.

I have a field the soil of which is a deep, dark-colored, firm, moist loam, free from rocks, with the exception of a few granite boulders. After having been laid down to grass about three years, the grass roots are entirely destroyed, leaving but little sward on the field, and destroying the grass crop almost entirely. From the fact that there are great numbers of large white worms, known as "sward worms," to be found in the soil, I have been led to suppose that it is this worm that commits the depredation. If you, or any of your correspondents, have had any experience similar to this, or have seen anything of the kind, and can give or suggest a remedy, it will be gratefully received through your paper.

Greene, Me., April, 1859. ANDROSCOGGIN.

HOW TO RAISE CABBAGE.

Make a hole in the ground three or four inches deep with a stick, and put about a teaspoonful of fine salt at the bottom of the hole; rattle a little dirt in on to the salt, and then set the

plant. About a week after the cabbage has been set, taken root and begun to grow, put as much salt in a circle two or three inches from the plant on top of the ground; take care that no salt comes in direct contact with the roots. Do not put much manure under the plants, but leach the manure and put the liquor round them at sundry times. Do this, and I will warrant good cabbages. WASHINGTON HALL.

Brewer, April, 1859.

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LAW REGULATING THE SALE OF MILK.

Does it render farmers liable for delivering milk to the milk-venders who provide unsealed cans for its reception?

How does it affect existing contracts?

If under present contracts milk-venders refuse to provide sealed cans, what is the farmer's remedy? Shall he refuse to deliver, as heretofore contracted, or shall he deliver as usual, and obtain satisfaction by process of law?

When does the act take effect?

REMARKS.—We refer our correspondent to the entire law given in the *Farmer* of April 23, and which will be found in the monthly for June.

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WIRE FOR FENCES.

What kind of wire is best for a fence? What is the cost of it, and where may it be obtained?

SAMUEL B. BIRD.

Framingham, May, 1859.

REMARKS.—We think number six wire the best size for a wire fence, though some persons use a much larger size. It costs about six cents a pound.

Mr. Bird has some of the long red potatoes for sale, recently inquired for. Price 60 cts. per bushel.

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POTATOES.

The potatoes I send are a variety raised from the seed about fifteen years ago; they are an excellent, early potato. By your description of those sent you by Mr. Hazeltine, of Strafford, I think this may answer his inquiry, as I gave some to a man that lived in Strafford some years ago.

Thetford, Vt., May, 1859. A. C. HOWARD.

REMARKS.—Mr. Howard has our thanks for the nice potatoes sent us. They are not the color or form of those sent by Mr. Hazeltine. We will plant and test them.

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TRANSPLANTING PINES.

Can you or any of your subscribers inform me, through your columns, the best time of year to transplant pine trees from the woods to decorate grounds around one's house, &c. Also, if any particular care is needed as to their transplanting? I wish to learn where I can obtain a "Muscova Drake" and two "Muscova Ducks," of the best breed known. Where may I be able to obtain them, and at what price? Any reply will be appreciated by your faithful reader and old subscriber, "OAK HILL."

May 12, 1859.

MAPLE SUGAR.

Damon Bridgman, of South Hardwick, Vt., has made this season 7,100 lbs. of tip-top maple sugar.

Joseph Stevens, of East Hardwick, has made, I understand, over four tons. Beat this you Chinese cane breakers, if you can, at the same cost. F. J.

Hardwick, April, 1859.

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PLUM TREES.

I have some red plum trees which blossom full every year, but do not bear much; I have some white ones, also, which are set with the red ones, which bear. I have tried a great many things which have not done any good, and would inquire if there is anything that would make them bear? The trees are very thrifty.

Bethel, Vt. A SUBSCRIBER.

For the New England Farmer.

PLANTS WITHOUT LEAVES.

MESSRS. EDITORS:—Having seen in the monthly *Farmer*, February, 1859, page 59, an article entitled "Roots cannot grow without leaves," and thinking the writer in error, I will state my opinion. It is a known fact that there are numerous exceptions to the general rule; for instance, there is the plant found growing in wet places, known as the bulrush; it shoots up numerous spikes or stems, that are from one to three feet in height, and from one-fourth of an inch in diameter downwards, without leaves, or the appearance of leaves, for the first four or six weeks, when it throws out the short stem on which the seed grows, but not any leaves. If any one doubts its having roots, try to pull one up! There is the button rush, with a stem of the thickness of a goose quill, or larger, but it has no leaves. There is the house leech, or live forever, the top of which will grow any length of time, severed from the roots, and suspended by a string. A good way to kill the Canada thistle is to cut off the top, close to the ground when in blossom, when the stalk is hollow. When it rains, the water runs down the stalk, and rots the roots. The absence of leaves will not do it, for without hollowness of stalk, you may cut them from July to December, clip, or burn as you please, but without effect. REGULUS.

Ripton, Vt., April, 1859.

For the New England Farmer.

WINTER WHEAT.

Hundreds of farmers in this State do not raise this grain, simply because they think they cannot. I have tried both upland and intervale, and find it does best on upland where I never manure it. I always select good, warm pasture land, (the older the better,) free from strong winds and standing water, and where the snow remains on as long as on any part of the farm. Break it up any time in July or August. Sow from the 20th of August to the 1st of September, at the rate of one and a half bushels per acre. Get it in two or three inches deep, if possible, with a plow or cultivator. After it is up a

coating of plaster, lime or guano, will help it very much, especially if dry. Prepare the seed the same as for spring wheat. Wash thoroughly, pickle in strong brine twelve hours or more, and mix with ashes or slaked lime.

In this way I get from twelve to fifteen bushels per acre, and think it doing well without manure. Have never tried manure on upland, but presume it would do well.

The kind of wheat called the White [Winter? Ed.] Blue Stem stands winter best. I have raised the above quantity, per acre, without applying anything but dry wheat and simply harrowing it in. N. F. MORRILL.

Sanbornton, N. H., May, 1859.

REMARKS.— Excellent, plain, and seasonable suggestions. Try them. By applying a moderate quantity of well rotted manure to the pasture land spoken of, we have no doubt the crop would be increased from twelve and fifteen bushels to twenty bushels per acre.

CLAY AS AN AMENDMENT TO SANDY SOILS.

Soils void of clay, or containing it in too small a relative proportion, are materially improved by a top-dressing, and particularly when the clay finds its way to the soil through the compost heap. In such case it exercises its peculiar power of absorbing ammonia and other products of decay, and afterwards yields up to plants the materials thus absorbed. While the clay is thus performing an useful office, itself is changed in condition so as to lose its greater tenacity, only holding this property in a sufficient degree to add firmness to sandy soils after its addition. The quantity of clay required to amend a sandy soil incapable of retaining manures, and indeed when even blowey, is not as large as many suppose. One thousand bushels per acre is sometimes quite sufficient, if evenly spread and left on the surface for a time, before being plowed in, so that rains and dews, assisted by sun and air, may cause the division to become more perfect. It is not the clay alone which corrects blowey sands, but in addition to its own effects directly, the roots of crops, grown by its assistance, lend their aid. When clay and vegetable mould can both be added to sandy soils, as in the vicinity of muck deposits, then the amendment is still more perfect.

The value of this kind of amendment is its permanency; for as the clay is not appreciably used by plants, it continues forever to imbue the sand, and each year to re-perform its function of retaining gases, abstracting valuable constituents from solutions, in addition to its mechanical use in giving the necessary solidity and adhesiveness to the soil.

Many are not aware that some sandy soils, notwithstanding the peculiar light condition of the dry surface, are still more difficult to disintegrate deeply by a sub-soil plow than heavier soils, settling by rains like a sea beach; in such sands many kinds of clay seem to act as a lubricator to the surface of their particles, and after being clayed, they may be the more readily plowed.—*Working Farmer.*

For the New England Farmer.

HORSES.

Too much vigilance is seldom known on the part of proprietors of mares, in selecting a horse to breed from. Hundreds of horses are offered, and urged as breeding stallions, a large number of which are objectionable by way of sad blemishes, bad proportions, or age. Their proprietors have a smooth story to tell. If his feet are contracted, small and of course weak, that is nothing, he was stabled too young. This stock will be just as good as though he had good sized and strong feet. If his knees are sprung, small, and of coarse weak, the story will be, he was put into a stall of some peculiar form, that caused his knees to be so. But that will not affect his stock. And so of all other weaknesses, disproportions and blemishes. Old horses, or mares, are objectionable for breeders, from the liability of their stock to possess the debilitating effects consequent upon age, which may not be discovered until labor is required of them.

Stallions are taken to the premises of persons, and many good qualities asserted and urged to induce patronage. I would say, hesitate, look for yourself, if you have confidence in your own judgment, if not, take some friend who is unbiased, to assist you. Generally, the best horses are not taken around the country for customers. If a horse has a reputation at home, he may stay there and save his proprietor much labor and expense. I would select a horse to breed from with every good quality possible, combined, viz: feet, which should not be contracted or flat; legs which should not be too slim or clumsy, but wide and sinewy; well spread knees, and prominent hocks; cords large, and highly developed muscles; full in the flank, deep in the chest; round barrel, a well placed shoulder, neck long enough so that he can put his head up or down; not too thick under the joles, well proportioned head, and active ears.

If I wished to raise horses to sell in the city markets at high prices, I would select a stallion, the nearer thorough-bred the better, about 15¾ or 16 hands high, with the above qualities, weighing about 1100 pounds, and possessing action of the highest degree. It is a fact that farmers may increase their interests in horse-raising to a very great extent, by judiciously selecting stallions and mares, the former of which is very much more under our control than the latter.

A N. E. FARMER.

For the New England Farmer.

RAISING GRAPES.

MESSRS. EDITORS:—Within a few days I have become possessed of information in the culture of the grape, which is new to me. It may be so to some others who would like to grow the Catawba and Isabella in perfection, but are deterred by repeated failures.

A distinguished horticulturist residing within hail of Plymouth rock, told me a neighbor of his was enabled to ripen his Isabellas in perfection, having built a coping of some two feet on the top of his trellis. Confirmatory of the above, I give you an extract of a letter, received from Bridgeport, Conn., a few days since. "I find no

mildew on my vines when they are trained under a projecting cornice of my barns, so that they get no rain or drip. I have on a western expo sure the most perfect Catawba and Isabellas when thus protected; while part of the same vines which are not so protected, but which continued beyond, are ruined in fruit and leaves. This has occurred for several years in succession. I have no doubt that vines on a lofty trellis or wall, with a coping of two or three feet, would be entirely free." EBEN. WIGHT.

Dedham, May 2.

For the New England Farmer.

IT LOOKS VERY LIKE A SHAM!

MESSRS. EDITORS:—I have before me, and I presume many of our friends have received the same, a stylish circular, which calls upon all creation and his brother to save trees, plants, vines, and millions of dollars a year, simply by the purchase of a certain magical powder, which works in a magical sort of a way, throwing all the wonders of the ancient necromancy, far into the shade. The author tells us a great many wonderful things in this circular. It appears that this powder of his has only to be tucked under the bark of any tree, to give marching orders to every insect, from buds, leaves, bark, wood or fruits. *Mirabile dictu!* The theory of the man who controls this wonder-worker, is, that the tree has some way of swallowing the powder, and disseminating it throughout its structure. Being but an inquiring Yankee, I would like to ask him a question or two. Just to give him convenient standing-room, we will assume that the tree will take this powder into its circulation when thus applied; now, with the perpetual circulation of the sap during the growing season, and the continual change of raw material into organic structure, by what magic is it proposed to keep the virtues of this powder permanently in the tree, so that every new bud, leaf and twig, as it develops, may receive its quota of the marvelous protective power? If it is a fair inference that the protection, which he says, is the results of its application, turns on some disagreeable flavor given to the buds, leaves, fruit, &c., whereby the marauding insects become disgusted with their food; may not we, poor pigmies, be permitted to indulge the hope that at some very early day this great patent-powder man will extend the area of his benevolent operations, and enable each of us to flavor our fruits to suit our palates? What a capital thing it will be to have, say a patent "sweet apple powder," subject to our dimes, by clapping which under the bark, all our savage old crabs will forthwith be compelled to set their internal laboratories in action, and manufacture sugar to order, instead of vinegar! When these halcyon days dawn, farewell to budding and grafting, relics of primitive ignorance; I shall then have merely to shake a paper of the patent-powder on my old choke pear stalks, when, lo! this one, despite any natural aversion to the contrary, must yield Bartletts, and that one must yield Seckles; all opposition will be utterly useless; Mr. Patent-powder says so, and therefore old "choke" can't help itself.

There is one other question I would like to ask this public benefactor, whom, I trust, the grateful public will not permit to wilt away like so many neglected geniuses of this class: Was it his great-grandfather, or was it his great-great-grandfather, that aroused a slumbering world, about a century or so back, by the wonderful discovery that all vermin and diseases of every kind might be expelled from our fruit trees, simply by boring holes into the trunk and filling said holes with good New England rum? And was it not his great-uncle who discovered, somewhat later in the day, that the enemies of our noble elm would be easily repelled upon boring like holes and filling with quicksilver? I feel a great interest in making these inquiries; I always love to look twice on the physician who tells me he is the seventh son of a seventh son, and am somewhat anxious to know whether our patent-powder man is not one of the same distinguished class.

There is one other miracle which he claims for his powder, and that is, if one table-spoonful be dissolved in a gallon of water, and any variety of garden seed be soaked in the solution, the plants which spring from these seed, will be preserved from the inroads of insects! Whew! Where is Mr. Mayor Tieman about these days?

A few years ago another distinguished friend of the farmer, (perhaps another relative of this philanthropist,) asserted, that after a pilgrimage of darkness and doubt, lo! these many years, he had suddenly found light, and discovered a sure preventive of the black knot on our plum trees, offering to reveal the same, for a consideration. Recently, I visited his grounds and looked with curiosity for the results, when, lo! the stumps of many plum trees were to be seen, but one or two trees remained; and alas, for human conceit, there stood the villanous black wart; there could be no mistake about it.

Now, I presume our patent-powder man has an extensive area, abounding with trees, shrubs, vines, &c., &c., all fully protected by his patent-powder, and open to public inspection, in proof of the perfect success of this original wonder-maker.

In conclusion, let me warn all friends, who may have proposed to themselves to invest in this thing, that powder is sometimes a very dangerous article, and that many a man has, before this, burnt his fingers in the handling of it. It may be that even Mr. Discoverer himself will get no gentle hoist before the public are through with it. J. J. H. GREGORY.

Marblehead, Mass.

KIDNEY WORMS.—Swine are often troubled with a disease denominated by veterinarians, the "kidney worm." Corn, soaked in very strong lye made of wood ashes, is said to be an infallible remedy. Salt and brimstone, in small quantities, is a preventive, and, indeed, the only one known. Comfortable quarters and good food are of really more importance in the successful management of these animals than many are inclined to suppose, and should never, on any account, be neglected.

For the New England Farmer.

BEAUTY IN TREES.

MR. EDITOR:—I have been led to write under the above heading, on observing treatment of a beautiful promising grove in the cemetery of a thrifty town not far from Boston.

A young growth of white pines and white birch, mixed, from 15 to 20 feet high, appeared as though some wood choppers had been instructed to cut the birches clean and all the pine limbs they could reach. If the birches had begun to interfere with the pines, they should have been cut in August, to prevent their starting again. But the pines, with their fresh and vigorous branches, cut smooth to the butts, looked as though they had fallen into the care of those who could not find any beauty in trees.

To say nothing of the check to the growth, how their trunks will look! For a year they will present a mass of flowing turpentine, dripping and oozing like a cancer. Live branches should never be removed from pines, if it can be helped; but if the limbs must be cut, take them off one foot from the butt, and let the stub die a natural death—then trim close, and no turpentine will run. One blow of an axe can remove a lovely branch, but the wealth of the world cannot replace it if it proves a mistake.

The white pine, when it stands at the best distances to make a good forest, keeps a live cone about twenty-five years; that is, the limbs live about twenty-five years, and at that age it commences to have limbs die at the bottom as new ones form at the top. On cutting the tree across, no matter whether one foot from the ground or forty, if below the live cone, you will observe about twenty-five large growths, from one-quarter to one-half inch; the largest when the branches were in their greatest vigor. Then at the death of the branch a sudden reduction of the growth to perhaps an eighth of an inch. By this beautiful arrangement the tree rises to a great height, with but little taper to its trunk.

I think the beauty in the white pine is, to let its branches alone until they die.

Kingston, March, 1859. CALEB BATES.

OATS LODGING.

Why do oats lodge? We have sometimes heard farmers boast that their ground was in such excellent heart that the oats would lodge, inferring therefore that the crop of oats was extraordinarily large, so large that the straw could not hold them up. We would argue that no real practical farmer ever met with this difficulty. The soil cannot be said to be in perfect heart, merely because it contains an excessive quantity of barn-yard manure. To be in heart, it should be in such exact balance that every part of the plant can appropriate what it requires to secure its strength, as well as its quantity. The material which gives strength to the oat straw, is silicate of potash, silex combined with potash. Whoever knew a crop of oats to lodge when grown on soils containing a fair amount of wood ashes? Whoever knew any crop to show rust when grown on a soil fairly charged with phosphates, of potash, soda, and lime? Can a plant be in a healthy condition when the silicious coating which gives it strength is deficient in quantity? The plant cannot avail of silex simply because it is surrounded by sand. There must be some alkali present to attach the surface of the particles of the sand, and to render the silex soluble in water. With that, the capillary action of the plant may elevate this soluble silex, and deposit it in such portions as require strength. This action upon the particles of sand, at the same time frees all the other constituents which go to make up its mass to the depth of the removal of the silex, the particles becoming smaller, and being so roughened at their surfaces by the chemical action of the alkali, as to prevent their settling by rains and dews so as to be too compact. All this is assisted in degree by the decay of roots in the soil; for these yield up among other constituents, alkalies, and of so progressed a kind as to have superior chemical power in the disorganization of the pent-up inorganic materials contained in every particle of the soil. Let no practical farmer then pride himself on having his land out of condition, and thus losing his oats for want of strength in the straw.—*Working Farmer.*

For the New England Farmer.

RUTA BAGA AND CORN CROPS.

MR. EDITOR:—In your number for May, I notice a communication from Mr. Cruickshank, on the raising of ruta bagas, and he is pleased to give us his name and place of residence at the close of it. He thinks them a remunerating crop, and asks the reason why I should be in doubt of it. I have been requested by others to give my experience in the cultivation of them. Influenced by them, and respect due Mr. C. for his experience and location, I am induced to state the reason for my doubts, for they are not removed, nor do I see that my questions are answered.

Thirty-five years ago, I planted as good a piece of land as I had with ruta bagas, with the intention of satisfying myself as to profit of their culture. I had a fine and plentiful crop; at the rate of more than 1,000 bushels to the acre, worth in our market 12½ cts. per bushel. Corn was planted beside on land as good, and all alike prepared, and produce 75 bushels per acre, worth $1 per bushel; grain and stover I put down at $75.

Well, sir, this looks well for bagas; $125 per acre, and corn on like soil at $85 per acre, making a difference in favor of bagas of $40 per acre. But let the next crop speak. This was barley and grass. Where corn had grown the barley leaf was broad and green; where the bagas had grown, the leaf was sorrowfully weak and yellow, and appeared to regret ever having made its appearance. The seedtime result was 35 bushels of barley per acre where corn had grown, and 15 bushels where bagas had grown, worth in our market 80 cts. per bushel. This I call $16 loss to the bagas. The next crop was grass; the hay was not weighed, but would compare well with the crop of barley, and so I charge the bagas with $16 more. Here my estimates ended, but not the effect of the bagas, for that is visible yet. This experience is confirmed by yearly observation, and the experience of many in this region, if not all, who have raised them.

In conversation with the Hon. Mr. Brooks, of

Princeton, he admitted his experience was much the same, but that a liberal supply of phosphate would restore the soil to its usual fertility; but he says, too, "This will cost too much. Yes, sir, it costs too much to raise ruta bagas to justify their cultivation in this region." I might multiply cases like my own experience. While I am constrained to differ from Mr. C. in relation to the profit in raising ruta bagas, I cordially agree with him in the *killing effects of a luxuriant crop of them.* They will do the work pretty thoroughly. My saddest experience has been a sandy loam and gravel subsoil. On stiffer soil this effect has not been as bad. Yet there it has been to me a bad crop. Let me have 3 acres of corn, with a good hay-cutter, and I am perfectly willing any one else should have the acre of bagas. As to their value for the growth of stock, I admit they are good. But when fed to cows in milk, I should much prefer to sell the milk, though I confess I should have misgivings even then, for the cows would lose their credit, or I should my own.

Now, Mr. Editor, you have my experience and views in relation to the rutabaga crop, and of course my reason for doubts as the profit of raising them. OTIS BRIGHAM.

Westboro', May, 1859.

For the New England Farmer.

BARNS AND LOAM—FACTS AND FIGURES.

MR. EDITOR:—I always enjoy reading the *N. E. Farmer.* Not that I always agree with the writers, but still, I am hardly the less interested in reading. Sometimes I take my pencil, and figure up the cost of the propositions therein proposed as improvements.

This week John H. Constantine proposes a new arrangement for a barn; said barn is to be from 80 to 100 feet square, with a cellar under the whole, 10 feet deep. My calculation on 100 feet square, makes the cost more than $3000, if built well, with a good stone basement on three sides. For a poor farmer, $3000—"I promise to pay," is an ugly customer to pay. The interest, taxes and repairs are more than $200 a year!

When he gets his barn built, and his stalls, 12 by 12, all ready, he is going to cart in his marl, &c., for winter use. Before he puts his stock into the pens, he is going to put into each stall one foot in depth of his marl, &c.; i. e., 144 feet. I took the stock I had wintered the last year, to see what it would cost me. I must have 40 stalls for my stock; 144 × 40=5760 solid feet, or 45 cords, or 135 common ox-cart loads. That is to fill the stalls once.

Now if a man will dig and cart into my barnyard, what will make, when dry, six loads a day, I will be satisfied with his day's work,—135 divided by 6=22½ days. Thus it will take a man and a team 22½ days to draw the first laying. He proposes to change this one a month—say six times; then it would take a man and team 135 days to draw the marl, &c., for winter use, —at $2 a day, $270. When you add the dropping of the stock, it will cost about the same to cart it on to the land, unless the farm is close to his barn, say, $270.

Now, he proposes to have 45 cords, or 135 loads, shovelled over once a week, and once a month to take out what is in the stalls, and put in fresh marl, &c. This is rather hard to calculate, as I do not know how he proposes to make the exchange; but I will venture to guess that it would take three hands all the time; at $20 a month for labor and board six months, this would amount to $360, making an aggregate of $900.

Some farmers may be so situated that they can make the above experiment for less; and it would cost others more. But I still find another difficulty. Where am I to get marl, &c., say 810 loads a year, for winter use? It would soon make my meadows all fish-ponds! If a man is rich enough, he may go into such experiments; but woe to the farmer worth from $3000 to $4000 who should try it. When Mr. Constantine gets his barn built, I shall call and see it, if I can.

Hollis, N. H., 1859. ED. EMERSON.

For the New England Farmer.

NUMBER OF TILES TO THE ACRE.

The following rule for ascertaining how many tiles per acre will be required for drains at a certain distance apart, may be found convenient, and is easily remembered.

In estimating, to include main drains, divide 48000 by the distance apart in feet. Thus: if the drains are to be 30 feet apart,

$$30\overline{)48000}\quad 1600$$ the number required.

If forty feet apart,

$$40\overline{)48000}\quad 1200$$ the number required.

Unless the drains are to be laid at an odd distance apart, the division may be made mentally in a moment.

The percentage of tile to be used in the main drains varies with the length of the laterals and with their distances apart. The above given rule supposes the laterals to be forty feet apart, and to have an average length of about four hundred feet each.

If it is required to know how many tiles would be used for lateral drains only, divide 43,560 by the distance apart. Thus: for lateral drains, 36 feet apart,

$$36\overline{)43560}\quad 1210$$ the number required.

These estimates suppose the available length of tiles to be one foot each, and in using those which are cut from the machine in lengths of 14 inches each, it will be found that about one thousand in number are required to lay one thousand feet in length. This is owing to the shrinkage of the clay in burning, to breakage in transportation, and to the rejection of imperfect tile.

Boston, May, 1859. J. HERBERT SHEDD.

CATTLE SHOW AND FAIR.—The Martha's Vineyard Cattle Show and Fair will be held at West Tisbury, on Wednesday and Thursday, Oct. 11 and 12, 1859.

DESIGN FOR A COUNTRY SCHOOL-HOUSE.

Perhaps we cannot better subserve the interest of the reader, in one issue, than by presenting him a pleasant and convenient design of a country school-house. We think our people, at present, are a little inclined to show and extravagance in the construction of their school-houses, and sometimes burden themselves with taxes that are *not* fully paid by the feeling of gratification, or pride, which they realize in the view, or contemplation of their handsome building. It is evidently economical to erect a substantial and well-arranged school-house, as well as an evidence of a high degree of good taste, of civilization, and a desire for progress in what ennobles and makes man better. But when we go beyond this, and add fanciful decorations that are somewhat questionable, and certainly expensive, we build monuments of folly, and load the community with burdens which they ought not to bear.

We copy this design by consent, from JOHONNET'S country school-houses, published by *Ivison & Phinney*, New York, and suggest to those engaged in building or altering school-houses to send for the book.

SOAP SUDS FOR CURRANT BUSHES.—A correspondent of the Indiana *Farmer* says: "I have found the cultivation of currants to be very profitable. By care and attention I greatly increased the size of the bushes and the quality of the fruit. My bushes are now about six or eight feet in height, and are remarkably thrifty. The cause of this large growth, I attribute in a great measure to the fact that I have been in the habit of pouring soap suds and chamber lye around their roots during the summer season. I am satisfied from my own experience and that of some of my neighbors, that this treatment will produce a most astonishing effect upon the growth and product of the bushes, and would advise others to give it a trial."—*Ohio Valley Farmer.*

BOLLES' PATENT ROCK LIFTER.

This famous machine was in operation at the Shaker Village in Harvard, on Tuesday, May 31, and we had the curiosity to look at its operations again, to see whether its achievements would corroborate our former good opinion of it. On arriving upon the ground we found the machine in operation, and it only required a few moments' observation to satisfy us that no question with regard to its ability was left open—it did all that was required of it, in so brief and quiet a manner, that no opportunity was given for doubt or excitement. So, after looking at it for an hour, we hurried off to a machine-shop to catch a little excitement among trip-hammers, turning-lathes and morticing-machines, leaving the Rock-Lifter to an admiring crowd of men and women who wore few, if any, *hoops!* They stood aghast to see rocks of five tons' weight exhumed at the rate of six or eight per hour, and probably wondered "what in natur' would happen next." It was said by good judges present, that the machine, aided by three men, a pair of oxen and a horse, accomplished more in one day, than six men and two pairs of oxen could have done in a week. We believe they were correct.

We are under obligations to Deacon AUGUSTUS GROSVENOR for "the key to his office," and for pleasant invitations to "take tea" within his neat and orderly precincts.

PORTRAIT OF AN ANTI-BOOK-FARMER.

The following very readable remarks we extract from Henry Ward Beecher's new book, "Plain Talks to Farmers," to be published June 4th, by Messrs. Brown, Taggard & Chase, of this city:

Whenever our anti-book-farmers can show us better crops at a less expense, better flocks, and better farms, and better owners on them, than book-farmers can, we shall become converts to their doctrines. But, as yet, we cannot see how *intelligence* in a farmer, should injure his crops. Nor what difference it makes whether a farmer gets his ideas from a sheet of paper, or from a neighbor's mouth, or from his own experience, so that he only gets good, practical, sound ideas. A farmer never objects to receive *political* information from newspapers; he is quite willing to learn the state of markets from newspapers, and as willing to gain religious notions from reading, and historical knowledge, and all sorts of information except that which relates to his business. He will go over and hear a neighbor tell how he prepares his wheat-lands, how he selects and puts in his seed, how he deals with his grounds in spring, in harvest and after harvest-time; but if that neighbor should write it all down carefully and put it into paper, it's all poison! its *book-farming!*

"Strange such a difference there should be
'Twixt tweedledum, and tweedledee."

If we raise a head of lettuce surpassing all that has been seen hereabouts, every good farmer that loves a salad would send for a little seed, and ask, as he took it, "How do you contrive to raise such monstrous heads? you must have some secret about it." But if my way were written down and printed, he would not touch it. "Poh, it's bookish!"

Now let us inquire in what States land is the best managed, yields the most with the least cost, where are the best sheep, the best cattle, the best hogs, the best wheat? It will be found to be in those States having the most agricultural papers.

What is there in agriculture that requires a man to be ignorant if he will be skilful? Or why may every other class of men learn by reading except the farmer? Mechanics have their journals; commercial men have their papers; religious men, theirs; politicians, theirs; there are magazines and journals for the arts, for science, for education, and *why not for that grand pursuit on which all these stand?* We really could never understand why farmers should not wish to have their vocation on a level with others; why they should feel proud to have *no* paper, while every pursuit is fond of *having* one.

Those who are prejudiced against book-farming are either good farmers, misinformed of the design of agricultural papers, or poor farmers who only treat this subject as they do all others, with blundering ignorance. First, the good farmers; there are in every county many industrious, hard-working men, who know that they cannot afford to risk anything upon wild experiments. They have a growing family to support, taxes to pay, lands perhaps on which purchase money is due, or they are straining every nerve to make their crops build a barn, that the barn may hold their crops. They suppose an agricultural paper to be stuffed full of wild fancies, expensive experiments, big stories made up by men who know of no farming except parlor-farming. They would, doubtless, be surprised to learn that ninety-nine parts in a hundred of the contents of agricultural papers are written by *hard-working practical farmers!* that the editor's business is not to foist absurd stories upon credulous readers, but to sift stories, to scrutinize accounts, to obtain whatever has been abundantly proved to be fact, and to reject all that is suspected to be mere fanciful theory. Such papers are designed to prevent imposition; to kill off pretenders by exposing them; to search out from practical men whatever they have found out, and to publish it for the benefit of their brethren all over the Union; to spread before the laboring classes such sound, well-approved scientific knowledge as shall throw light upon every operation of the farm, the orchard and the garden.

The other class who rail at book-farming ought to be excused, for they do not treat book-farming any worse than they do their own farming; indeed, not half so bad. They rate the paper with their tongue; but cruelly abuse their ground, for twelve months in the year, with both hands. I will draw the portrait of a genuine anti-book-farmer of this last sort.

He plows three inches deep, lest he should turn up the poison that, in his estimation, lies below; his wheat-land is plowed so as to keep as much water on it as possible; he sows two bushels to the acre and reaps ten, so that it takes a fifth of his crop to seed his ground; his corn-land has never any help from him, but bears just what it pleases, which is from thirty to thirty-five bushels by measurement, though he brags that it is fifty or sixty. His hogs, if not remarkable for fattening qualities, would beat old Eclipse at a quarter-race; and were the man not prejudiced against deep plowing, his hogs would work his grounds better with their prodigious snouts than he does with his jack-knife plow. His meadow-lands yield him from three-quarters of a ton to a whole ton of hay, which is regularly spoiled in curing, regularly left out for a month, and very irregularly stacked up, and left for the cattle to pull out at their pleasure, and half-eat and half-trample underfoot. His horses would excite the avarice of an anatomist in search of osteological specimens, and returning from their range of pasture, they are walking herbariums, bearing specimens in their mane and tail of every weed that bears a bur or a cockle. But, O, the cows! If held up in a bright day to the sun, don't you think they would be semi-transparent? But he tells us that good milkers are always poor! His cows get what Providence sends them, and very little beside, except in winter, then they have a half-peck of corn on ears a foot long thrown to them, and they afford lively spectacles of animated corn and cob-crushers—never mind, they yield, on an average, three quarts of milk a-day! and that milk yields varieties of butter quite astonishing.

His farm never grows any better, in many respects it gets annually worse. After ten years' work on a good soil, while his neighbors have grown rich, he is just where he started, only his

house is dirtier, his fences more tottering, his soil poorer, his pride and his ignorance greater. And when, at last, he sells out to a Pennsylvanian that reads the *Farmer's Cabinet*, or to some New Yorker with his *Cultivator* packed up carefully as if it were gold, or to a Yankee with his *New England Farmer*, he goes off to Missouri, thanking Heaven that *he's* not a book-farmer!

Unquestionably, there are two sides to this question, and both of them *extreme*, and therefore both of them deficient in science and in common sense. If men were made according to our notions, there should not be a silly one alive; but it is otherwise ordered, and there is no department of human life in which we do not find the weak and foolish men. This is true of farming as much as of any other calling. But no one dreams of setting down the vocation of agriculture, because, like every other, it has its proportion of stupid men.

Why then should agricultural *writers*, as a class, be summarily rejected because some of them are visionary? Are we not to be allowed our share of fools as well as every other department of life? We insist on our rights.

A book or a paper never proposes to take the place of a farmer's *judgment*. Not to read at all is bad enough; but to read, and swallow everything without reflection, or discrimination, this is even worse. Such a one is not a book-headed but a block-headed farmer. Papers are designed to *assist*. Those who read them must select, modify, and act according to their own native judgment. So used, papers answer a double purpose; they convey a great amount of valuable practical information, and then they stir up the reader to habits of thought; they make him more inquisitive, more observing, more reasoning, and, therefore, more reasonable.

Now, as to the contents of agricultural papers, whose fault is it if they are not *practical*? Who are the practical men? who are daily conversant with just the things a cultivator most needs to know? who is stumbling upon difficulties, or discovering some escape from them? who is it that knows so much about gardens, orchards, farms, cattle, grains and grasses? Why, the very men *who won't write a word for the paper that they read*, and then complain that there is nothing *practical in it*. Yes, there is. There is practical evidence that men are more willing to be helped than to help others; and also that men sometimes blame others for things of which they themselves are chiefly blameworthy.

For the New England Farmer.

MOWING MACHINES.

I am frequently asked what kind of mowing machine had I better obtain for the cutting of the grass on a farm of about one hundred acres—fifty of which are upland mowing? A mower moved by one horse should be sufficient for such a farm; though if two or more adjoining farmers could unite in purchasing a machine to be moved by two horses, the work would be better done. The best way you can fix it, it requires power, and considerable of it, to carry through a swarth three and a half or four feet wide, where there is a burden of grass of two tons to the acre; and no enterprising farmer should remain satisfied with a crop less than this, on land of fair quality. I know that the average product, throughout the State, is less than one ton to the acre; but this does not prove that it ought not to be two tons; it only proves that the present state of culture is far below what it ought to be. So many have practised *skinning their land*, by running the plow only four or five inches deep, and *scrimping* it by dealing out their manure with a small shovel—that the small crop mentioned is the consequence.

ESSEX.

May 2, 1859.

COTTAGE SONG.

BY JOHN S. ADAMS.

We've a cottage clothed with roses,
Near a wood,
Where the singing birds of summer
Nest and brood;
There in early spring the daises
Gem the sod,
Looking up to heaven above them,
And to God.

There in holy calm we worship
One above,
Through His works that all around us
Speak His love;
Read we there His will in every
Rock and tree,
While His blessings fall upon us,
Rich and free.

Beautiful the morning sunlight
Cometh there,
Crowning Nature at her early
Morning prayer;
And at evening, when the twilight
Closeth round,
Still, devoutly at her worship,
Is she found.

We are not alone, for angels
Come and go,
Walking often through our cottage
To and fro;
Promising to guide and guard us
With their love,
Till we go to live among them,
Up above.

Simple life is ours; we follow
Nature's way,
Learning of her truthful lessons
Day by day;
Striving to fulfil our mission,—
Doing good;
Living happy in our cottage
Near the wood.

SOUR MILK IN GREECE.—Dr. Landerer states that the Greeks, as well as the Turks, are great lovers of milk, especially sour milk, called by the former *zynagalon*, and by the latter *jagusti*. Immense quantities of this sour milk are brought from the neighborhood of Attica to Athens, and every one hastens to purchase it in the belief of its wholesome qualities. And, in fact, this *zynogalon*, which exhibits a gelatinous coagulum, is a very cooling and nutritious article. It is consumed with almost every dish. The shepherds prepare it either with rennet or from some of the dried coagulum of the milk itself;

but the milk-sellers of the town employ alum for the purpose, or place in the warm milk an old Spanish coin, supposed to be of peculiar efficacy in securing coagulation.

EXTRACTS AND REPLIES.

ARTICHOKES FOR COWS—WHITE SPECKS IN BUTTER.

Will you be so kind as to inform me through the columns of your paper, whether or no artichokes are useful to give cows.

I have, for years, occasionally noticed white specks in butter, and have made inquiry for the cause, but no one can tell. If you rinse the butter, many of those white particles will float on the top of the water, but it is impossible to get them all out. If you can tell me the cause or preventive, you will favor one who is interested in your journal.

What soil is best for white blackberries, and what will make them productive. T.

Felchville, Vt., 1859.

REMARKS. — Artichokes are good for cows, given in proper quantities.

In churning, as soon as the butter begins to come, all the particles of cream that have been thrown to the top, or any other part of the churn, should be carefully scraped down. If they are left, they will, more or less of them, mingle with the butter, and make white spots. Sometimes, however, butter will have white streaks through it. This may be occasioned by collecting the cream at many different times, so that in churning some of it is quite fresh and does not "come" so readily as the rest. The cream, while being collected, should be salted a little, and carefully stirred every day.

OBSTRUCTED MILK.

I have a valuable cow which calved about ten days ago; she has an obstruction in one of her hind teats. The milk will only flow in a very small fine stream and takes as long to milk it as it would two cows. The teat or udder does not swell, no appearance of garget; but there appears to be a small hard bunch in the teat in the milk passage close up to the udder. Can you, or any of your readers, tell me what to do for it?

Atkinson, N. H., May, 1859. L. KEEN.

REMARKS.—Take one-half of a small pair of scissors, and grind down to a sharp edge on both sides, and running down to a small point. Hold the teat firmly in the left hand and thrust the instrument up the teat, gently, so as to make an incision one-sixteenth or one-eighth of an inch wide. If you find the stream obstructed in a day or two, repeat the operation.

TO SAVE VINES FROM BUGS.

The most sure remedy is to go over the hills early in the morning, and kill all you can find; get some old shingles or bits of board, put a little tar on one side, and lay it so the bugs can crawl under, by the side of the hill; they can then be readily found about the middle of the day and killed. I sometimes use a mixture of three parts flour, two of sulphur, one black pepper, and sprinkle a little on and around the vines. Last season, I entirely gained the victory over the bugs in three days. Perhaps some may think my mode requires a deal of labor, but one hour in the morning and another at noon for a few days will save an acre, that is, if the bugs do no worse than heretofore.

Shaker Village, N. H. HENRY J. DURGIN.

RECLAIMING LAND.

I have a small piece of wet land that was covered with brakes and small brush, and bore little worth anything. In August, 1855, I mowed it with a bush scythe, and let it dry well, and then burned it. After which I took a team and plow and tore it up, and let it rest until the next June, 1857; then I took a bog-hoe, and levelled it, and dug a ditch, and sowed herds-grass, red-top and clover seed and a few ashes. In 1858, I cut two crops of hay; the first was as large as I could well dry on the land. I have tried a number of pieces in the same way with equal success.

Ashby, Mass., 1859. A. TAYLOR.

GREEN WORMS—INCH WORMS.

Last year the currant and gooseberry bushes of this place were stripped of their leaves, by a green worm about an inch long when full grown, by some called the inch-worm. When the bush is jarred, it will suspend itself by a web some six or eight inches long, and then return to its work of destruction. They are so numerous in some localities that it would be an endless job to pick them off by hand. Can you tell of some more expeditious method of ridding our gardens of this pest? They commence their work about the last of May or first of June. I. G. J.

Great Falls, May 16, 1859.

REMARKS.— We know of no remedy, as the common application of whale oil soap, &c., would be quite likely to spoil the fruit.

ROOT CROPS.

Having read considerable discussion in the *Farmer* the past winter, on "Root Crops," I would refer you to an article written by myself at your request, printed in the *Farmer* of April 5, 1856, on the first page, in regard to "Root Crops."

I wish to say that I have practiced the same mode of farming with equal success, and that I now have a cow five years old that weighs 2360 lbs., being 300 lbs. heavier than either of those I had at the United States fair at Boston.

I wish to have it understood that her principal extra feed during the winters has been roots.

JOSIAH BENNETT.

Westmoreland, N. H., April, 1859.

COCKROACHES.

Can you, or any of the readers of your valuable paper, inform me what will exterminate cockroaches? A SUBSCRIBER.

For the New England Farmer.

STRAIGHT COMB.

MR. EDITOR:—I fully agree with Mr. Quinby as to the advantage of the movable comb hive. Indeed, it is difficult to understand how any one who has given it a fair trial could come to any other conclusion. Mr. Quinby says that he should be pleased to have all admit that the *triangular guide* was public property. I understand that it is, and that any one has a right to use it. Soon after I commenced keeping bees in the Langstroth hive, Mr. Clark's partner or agent called on me, and forbid my using the guide. I subsequently learned from the Patent Office that neither Mr. Clark nor Mr. Langstroth had obtained a patent for this part of the hive. Which of the claimants is entitled to the invention is a matter of little interest to me, as I do not now use it, and consider it of no value.

Mr. Clark's partner or agent did not succeed in forcing me to pay him five dollars for his pretended patent, but he did succeed in calling my attention to the possibility that there might be other ways of securing straight comb quite as good, and perhaps better. I shall now endeavor to describe a plan so easy in its arrangement, so certain in its results, that I doubt if a better can be desired.

Take worker comb one or two years old and cut it into strips one and a half or two cells wide. With a small brush, coat the under side of the top strip of the frame with melted rosin and bees wax, and immediately lay on one of the pieces of cut comb, placing it so that the divisions between the bottom of the cells will form a line through the centre of the top piece of the frame from end to end. If the comb is crooked it can be straightened, and as it adheres firmly to the wood, it will remain so. One frame full of comb will cut enough for several hives. As the comb does not cut smooth and neatly with a cold knife, I make use of a plan by which the knife is always kept warm, cutting the comb so smooth that the bees take up the cells where the knife leaves them, and proceed with their work without cutting away any of the comb. This arrangement for obtaining straight comb costs less than the triangular guide, is more reliable, and is free to all. E. A. BRACKETT.

Winchester.

For the New England Farmer.

HOW CUT NAILS WERE INTRODUCED.

MR. EDITOR:—In your paper of March 12, under the head of "American Inventions," is a communication from CALEB BATES, Kingston, Mass., upon the invention of screw augers and cut nails. I have some facts in regard to the first invention of cut nails, received mainly from the Hon. John Folsom, formerly of Chester, once well known in various public offices, and as the keeper of a public house, which I will relate perhaps more in detail, and be more personal than will be generally interesting, but I think will interest many individuals.

Mr. Folsom told me that his father, David Folsom, was the first inventor of cut nails. The idea was suggested to him by seeing some person cutting with a pair of shears, some pieces off the end of an iron hoop. He commenced cutting nails with shears, and heading them in a common vise. He then improved by having his cutting apparatus operated by a crank motion with a fly wheel, and a treadle operated by the foot. In heading, the vise was superseded by dies, a stationary one fastened to a bench, and a movable one attached to a lever, and drawn together by the foot. When this was first invented, every nail was taken from the dies, as well as put in, with the fingers. They soon bored a hole through the bench, so that the nails could drop out by their own gravity.

The introduction of the business, I think, was at Tamworth, N. H., or that vicinity. My informant was born in 1776, and I think that when he was eleven years old, which would be about 1787, his father removed with his family to Harrisburgh, Pa., and there set up the business, but died in a few months, leaving another son, William Johnson Folsom, some four or five years older than John, and they carried on the business there until John was about sixteen, or about 1793, when they removed back to Tamworth, and set up the business.

In April, 1794, Hon. Joseph Blanchard, of Chester, N. H., who owned the mills at what is now Auburn village, married the widow Folsom, who was a daughter of the Rev. William Johnson, of West Newbury, Mass., and in the course of a year, the young Folsoms removed there, and carried on the business, and after a while, commenced cutting by water, but still heading by hand.

After the New Hampshire State Prison was established, nails were cut there and carried to Concord to be headed by the prisoners, but the self-heading machines having come into use, it became a losing business, and was given up.

Auburn, N. H., May 3, 1859. B. CHASE.

MIDDLESEX AGRICULTURAL SOCIETY.

This Society, although the oldest county society in the State, is still hale and hearty. Its affairs are systematically managed. Its officers are energetic men, and the programme of its last exhibition was promptly carried out. The sum awarded in premiums was $708,30.

Their last Transactions has several valuable reports of committees. One on heifers contains several useful suggestions to breeders.—The paper by ASA CLEMENT, of Dracut, is both witty and instructive, and tells the truth plainly about dwarf pears. The result of this department of fruit culture has not hitherto proved very satisfactory. We think there has been money enough expended in it, and we cannot, in conscience, recommend it, except in localities that have been found peculiarly favorable.

The report by SAMUEL H. RHOADES, of Concord, on *stallions*, is a good one. That upon *bread*, by MINOT PRATT, of Concord, shows that he both knows what good bread is, and how to make it. Several of the statements by competitors for premiums are rather meagre. We should

be glad to see them more full and particular. The two most important papers in the report are a story by the Secretary, Dr. JOSEPH REYNOLDS, designed to illustrate farm management —and the address at the table by RALPH WALDO EMERSON. These are both interesting, and both suggestive of thought. Mr. Emerson's address is in his own peculiar style. He has a wonderful faculty of clothing old ideas in a new garb, so as to make them appear original and impressive. He can say more in a few words than most men, and he takes a philosophical view of everything he looks at. We heard of a remark with regard to the story upon farm management from one of the best farmers in the county, which we think, will afford the author more pleasure than the premium he received for it. It was this. The farmer said if he had a son who was going to farming, he knew of nothing he would sooner put into his hands, than that simple story. Both the story and the address have been extensively copied, not only by the agricultural press, but other papers also.

We do not notice any premiums awarded for flowers, or for farms, or experiments. We would recommend the offer of premiums for experiments in reclaiming pasture lands, as a subject of great importance in Middlesex county,—the greatest milk-raising county in the State. The pastures in Middlesex are very much exhausted, and if anything can be done to restore them, it will be of immense value to the county.

There is much experience in this county with respect to feeding stock, which if it could be brought out, might result in securing much larger products from the same means.

For the New England Farmer.

SECOND MARKET DAY FOR ESSEX.

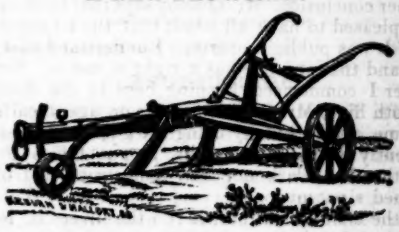
This came off near Sutton's Mills, in North Andover, yesterday. The gathering was large, the animals presented of superior character, and trading brisk and satisfactory. So well satisfied were the trustees of these markets that they determined to hold a third at Georgetown, on Tuesday, the 21st of June, 1859. The probability is, double this number would have been at Andover had it not have been for the rainy aspect of the skies; but the rain did not essentially mar the utility of the fair.

I was pleased to see on the ground a mower, to be moved by one horse; and wheels for guiding the plow without hands; and corn cultivators, said to do the needful, without disturbing the roots of the plants. I have entire confidence, that market fairs are to be one of our

May 18, 1859. YANKEE NOTIONS.

AGRICULTURAL BOOKS. — Messrs. CROSBY, NICHOLS & Co., Washington Street, Boston, keep a large assortment of agricultural books which they offer at low prices. A good farmer cannot afford to be without good agricultural books, as he will find his profits increased by their perusal.

A NEW PLOWMAN.



Labor-saving implements and machinery are desirable, we believe, on every account; at least, we know not what possible disadvantage is connected with any good labor-saving machine.—If they are useful and profitable under our present mode of culture, they will be likely to remain so until superseded by something still more useful and profitable.

Under existing circumstances, where so large a portion of the farm labor of New England is performed by our trans-Atlantic brethren, we want one of two things—machines that will *think*, so as to perform all this labor in the cheapest and best manner, or some person must put his *own thoughts into machines*, and so contrive them as to make them work *without* thought, when the motive power is applied to them!

The farmer will surely be disappointed, who expects to conduct his affairs satisfactorily with only the heads and hands of these excellent brethren in their way, to whom we have alluded. They have broad shoulders and strong hands, with some impulse and great persistency in labor, but nothing, or little, to guide it. They must pass many more years yet in a course of preparation, aided constantly by Yankee teaching and examples of aptitude, before they will become qualified to take the lead in our agricultural operations.

The *Plowman*, introduced at the head of this article, is a machine of the latter description. Hitch it to your motive power, set it in place, and your men, without heads, or at least, heads innocent of much thought, will perform for you a good work. The *Plowman*, like most good contrivances, is a very simple affair—merely a triangle of cast iron, with a wheel at one point. It is attached to the beam of the plow by bolts or screws, and is not easily broken or put out of place. In company with Mr. J. M. WHITNEY, of Bolton, Mass., the inventor, we took it to the field and set it in motion. When once in place, and properly adjusted, it kept on its way un-

touched by any one, and did work that would do credit to the best workmen. Its employment will save the labor of one hand, in many instances, and a saving may be made in a single week sufficient to pay for it. Look at it, and if it seems comely to you, test it.

For the New England Farmer.

AGRICULTURE.

MR. EDITOR:—In order to obviate some of the prejudices which, unfortunately, exist among farmers against *book knowledge*, I wish to say a few words upon *scientific*, *experimental* and *practical* agriculture.

Scientific agriculture, as I understand it, explains the various methods of cultivating, improving and beautifying the earth, so as to render it more productive and delightful. The term *agriculture*, it derived from "ager," a field, and "cultura," culture, so that, according to its etymology, it means *field-culture*. In a restricted sense, it is confined to, and explains, the different operations required in the cultivation and improvement of arable and grass lands, and whatever appertains to the same; the cultivating and preserving different kinds of crops, fruits, &c. In a more extensive sense, it includes the breeding, rearing, feeding and management of all kinds of stock, and the disposal of the same. And it is the particular province of *scientific* agriculture to explain the reasons why things should be done thus and so, and not in a different manner. *Science* means knowledge; and he who possesses it, is master of his subject, and is competent to explain it. But, as it is human to err, and there is no such thing as human perfection, it frequently happens, that our most scientific men are mistaken in some points, and therefore are not perfectly reliable in all their statements; and the reason is obvious, either because they have been deficient in scientific knowledge, or because they have carelessly overlooked some of the causes which have contributed to produce a certain result, or have attributed the result to wrong causes. In either case, it does not prove the uselessness or the worthlessness of science, or book-knowledge, but directly the reverse; for, if the most knowing and scientific sometimes make mistakes, the least scientific, that is, the most ignorant, will be the most likely to make the most frequent mistakes. Errors of this kind are the result of ignorance, and not of science or knowledge; and their frequency is generally in proportion to the degrees of ignorance which prevail. Ignorant people on this subject, are like narrow-necked bottles, the less they have in them, the more noise they make in pouring it out. They seem to think that "a little knowledge is a dangerous thing," especially if it be derived from books. At least, they think it quite unnecessary for farmers to trouble themselves much about book knowledge, or to try to educate themselves beyond their immediate labor in the field. They seem almost to entertain a prejudice against one who devotes much attention to subjects of art, or science, or general literature, as though such studies were inconsistent with the ordinary business of a thrifty farmer. Very few farmers are so burdened with work, that they cannot find one or two hours each day for other studies besides those which relate to agriculture. The objects of all our private studies should be the better to qualify ourselves for our work, to make us more intelligent, more skilful, more scientific, and thus to raise ourselves above mere serfs and laborers, to a position of influence and growing usefulness.

Experimental agriculture differs in some respects from the scientific, inasmuch as it consists in endeavoring to find out by a series of experiments, what science already knows and is prepared to teach systematically. All experiments are more or less expensive. It may cost hundreds and thousands of dollars to test and to make sure what we desire to know. To accomplish our purpose, time and money and labor are required. But, when we have once obtained our knowledge by well tried experiments, and printed the results in a book, it then ceases to be experimental, and is so much added to our present stock of scientific knowledge. Every one who tries experiments should be a man of thought and reflection, who knows how to combine elements, so as to make wheat, corn, roots and other vegetables grow, upon which man and beast subsist. He should be a reader of agricultural books and periodicals, a careful observer of nature, a close thinker, a correct reasoner, so as to be able to draw correct conclusions. In making experiments, he should do it at first on a small scale, and according to his means, and repeat them a sufficient number of times to establish their certainty. But, then, there would be less need of his making experiments, if he read more and understood better the experiments of others. Books should be "the man of his counsel and the lamp to his feet to guide him in the path of duty," because books contain the experiments and the experience of others. Still he should not believe in the truth of every statement which he finds in agricultural books and papers, especially in the latter, because many of the writers in the agricultural papers are uneducated men, honest and truthful, but they do not know the whole truth, and are liable to make wrong statements. For instance, in the use of salt, quicklime, potash, &c., for agricultural purposes, great caution is necessary, however strongly they may be recommended; because, when improperly used, or in wrong quantities, they are very destructive to vegetation. It is chiefly owing to the mistakes which have been made in the use of these and such like articles, that so many prejudices exist against book knowledge.

Practical agriculture is founded on science, experiment and experience; in other words, it is practical knowledge applied to farming, whether that knowledge be derived from books containing the result of other men's experience, or from our own thoughts, study and experience. At any rate, it is not visionary or theoretical, but practical. It consists in applying the well-know and well-established principles in the science o. agriculture to the cultivation and improvement of the soil, in rendering it more productive and better fitted for the support and accommodation of man and beast. We have many practical farmers who do not pretend to be very scientific, or much given to experiment, but whose practice works to a charm. They read and think and

judge for themselves, and apply in practice whatever appears to be right and reasonable. They are not only practical, but progressive farmers. They are continually learning more and more, and doing better every year. They go on from one degree of improvement to another, so that you may know them by their *good fruits*, as well as by their good works.

JOHN GOLDSBURY.

For the New England Farmer.

TASTE AMONG FARMERS.

MR. EDITOR:—There seems to be a great want of taste among many of our farmers. They appear to think that taste is of no importance whatever—something which they have nothing to do with—and if they only attend to the important duties of the farm, they care nothing for appearances.

One way in which they show want of taste, is in the surroundings of their dwellings; they will leave an ox-cart, sled or hay-rigging, in the door-yard, or in close proximity to the house, rather than be at the trouble of removing it a rod or two farther, where it would not be so unsightly.

Some will have piles of manure, heaps of stones or huge piles of wood, left where they give an air of slovenliness to the homestead, no matter how new or handsome the buildings may be.

There are some farmers who limit their shade trees to a few so situated that they cannot damage land which they care anything about, making *that* the standard, and sacrificing a noble elm, or handsome oak, or maple, because they draw the juices of the soil, and they fear they shall have a few less hills of potatoes or corn, if they let them remain.

Perhaps some will say, well, my buildings are old, and I don't think it makes much difference what I have around them; but *I* say it *does* make a great difference. What if the buildings are old? if there is an air of thrift and neatness about them, they will not look one-half so unsightly. Who would not see a difference between even a hovel without a shade tree or a rosebush, and one precisely like it with rosebushes and woodbines, climbing up its weather-beaten walls, covering its numerous imperfections, and with the addition of one or two shade trees, making the spot look really attractive? It makes nearly as much difference as there is between neatness and negligence, in the interior of a dwelling.

Think not that I believe all farmers show a want of taste, for many a farmer's home exhibits an appreciation of the tasteful and beautiful highly creditable to the proprietor. Let not the farmer think it is beneath him to attend to such things, nor consider that time lost, which he spends in making the surroundings of his house tasteful and attractive.

"Let the green tree wave by thy cottage door,
And the rose in thy garden bloom;—
With them shall the planter's memory soar,
When he rests in the quiet tomb:—
And oft shall the travellers pause to view
The works of thy patriot hands,—
The rose and the tree—the elm or the yew,
That now by thy door-way stands."

Concord, Mass., Feb., 1859. TASTE.

For the New England Farmer.

PRUNING AND RAISING APPLE TREES.

My attention was called to make this communication by seeing one signed by Thomas Ellis, of Rochester, in the *N. E. Farmer*, monthly, vol. 10, page 539.

I have got into the same dilemma myself that the writer of that article did. I have tried for a number of years to raise an orchard, and have succeeded in getting about a dozen trees to bear about as many apples each, and a small nursery for my own use of about one hundred trees large enough to set, all grafted. Now I am willing to confess I pruned my trees the wrong season of the year.

About a year ago I examined articles on pruning in the *N. E. Farmer*, from vol. 2 to that time, and with more light, as I thought, than I had possessed before, made up my mind to prune my trees about the middle of June, although the editor quoted in one place from Downing, that "small branches may be taken off any month in the year with safety." This can't be so, and I did not believe it when I read it, but did think it would be safe to prune about the middle of June. I began to prune some the 11th of June, but did the most of it just after the middle. I covered the wounds with cement, but they soon commenced bleeding, and I could not stop them. I thought of searing them with a hot iron, but had never seen that recommended. If they run very much, the tree is ruined; it makes it sickly, and soon dies; the sap running down, kills the bark and rots the tree. I have lost a number of trees by having them injured by cultivating among them, by breaking the branches off, or otherwise maiming them. And with all the light of the present day, probably not one tree out of four lives to grow up a healthy tree. A great many orchards are killed by pruning, some by mice, some by cattle, so that the chances for getting an orchard are small. From what little experience and observation I have had, it is my opinion that any farmer may set an orchard on good ground with trees grafted or budded, then cultivate yearly, and in ten years from the time the trees are set, not more than one in four will be worth what it cost when set.

We think the present age is an enlightened one; that our forefathers were "old fogies." It may be so, in some instances, but is it so generally? I think not. Even in orcharding, farmers took great pains to get trees; some carried them miles on their shoulders to set orchards, selecting the best situation, preferring a side-hill. After being set, they were left to grow, not torn up by the roots with a plow, or barked by the ox-yoke or the harrow, nor pruned to death. Grafting and budding were not practised as now, it is true; the object was then to raise apples for the family, and apples for cider. This they did to a good purpose. It is true they did not have so good a variety as at the present day, but many of our best apples are from the "native" trees.

The editor, in his remarks on Mr. Ellis' communication, when speaking of our fathers, says: "They probably pruned apple trees in March or April, because it more was convenient, and as they did not graft nor bud and produce as many valuable trees as we do now, they cared less if

they did die, and would supply their places with another set of natural fruit." Here, in the cold State of Maine, March is the best time to prune. I have known trees for thirty years that had been pruned in March that are now healthy trees. Three years ago I had small trees in my nursery trimmed by the snow settling in March. The branches were broken off, so as to leave a cavity in the main stem, and I never saw trees heal so quick, and that were so smooth where the branch came off, as they are now. E. G. C.

Canaan, Me., May, 1859.

REMARKS.—Trees are governed by natural laws just as much as animals, or the winds or rains. If the land of "Canaan," where our correspondent dates, is so cold and backward a region as he intimates, then July would be the time to prune, according to our theory.

MIDDLESEX SOUTH AGRICULTURAL SOCIETY.

This society appears to be in a flourishing condition. It is in the hands of energetic and progressive men. The address of Hon. EMERY WASHBURN contains many useful suggestions. The dinner was enlivined by the presence and remarks of several eloquent gentlemen. This society has usually been fortunate in the selection of guests which have honored their board.

The various statements of the poultry fanciers are an interesting feature in the reports, and show what can be done in this department of the farm, by care and judicious management.

The only premiums awarded for horses, were for farm and working horses. Such premiums clearly come within the range of farm premiums. As the labor of horses is fast taking the place of ox labor, we should be glad to see the breeding of this class of horses encouraged. Several premiums were awarded for cut flowers and bouquets. These add much to the beauty of the exhibition in the hall, and their culture is a source of much pleasure, and a gratification to any person of taste, and we hope all our county societies will offer premiums for their exhibition. We notice that several have done so this past season.

Awards were made for apple orchards, for pear trees, for peach orchards, for grain crops, root crops, and for reclaimed meadows. Many societies confine their awards to articles exhibited at the tables—the products of the garden and the field. We doubt the expediency of this. The skill of the cultivator is better exhibited in the culture of the trees in the field, than in the dish of apples or other fruit, which may often be the result of accident, or of the skill of some one who has owned and cultivated the trees before him. But the man who has planted and brought into bearing a fine growth of trees, gives proof of his own skill, and has made some permanent improvement of his farm. Premiums for entire crops are more satisfactory, and we think more useful than for samples. Such premiums bring out statements of the methods of cultivation on different soils, and in different localities, that are often highly interesting and valuable. We think the trustees of this society have shown much sound judgment in the selection of the objects of their awards. There are many other subjects deserving their attention, and we doubt not they will receive it in due season.

For the New England Farmer.

AGRICULTURAL BOOKS.

MR. EDITOR:—The following remarks were read a few evenings since before the Concord Farmers' Club. At your request, I send you a copy. Yours, &c., J. R.

A new department of literature has been created within a few years. We have books on soils, on manures, on horticulture, on field culture, on tree culture, on fruit culture, on cattle, on horses, sheep, swine, draining, farm implements, &c. &c. These may be considered chiefly scientific. Then we have a wide range of what may more properly be called agricultural literature, consisting of agricultural papers, periodicals, transactions, addresses, reports and essays, relating to agriculture or collateral subjects. All these constitute a great body of reading. Men are better educated than formerly, and read more on all subjects. No man is now satisfied with the knowledge of his own business which he gains by his own experience. He avails himself of the knowledge of others as well. He must do so, to keep up with the progress of the times. This is as true in agriculture, as in any other pursuit. Farming is progressive. Principles must be understood, and their application varied according to circumstances. To do this, principles must be studied, and the circumstances which require their varied application must be studied. Young farmers all read, and find their views enlarged, and their stock of ideas increased by it. They thus acquire food for thought, and learn to reason. The interchange of ideas by means of books, is like the interchange of products by means of commerce. It contributes to the wealth and prosperity and comfort of all parties engaged in it. This interchange of ideas is the great means of civilization and refinement. The man of ideas is the man of power. But his ideas are chiefly obtained from others; for no one man originates more than a few ideas. If he did, he would become too powerful, and would swallow up his neighbors. Reading serves to distribute and equalize the amount of existing ideas, as commerce serves to distribute and equalize wealth. Before commerce was established, a few men had the wealth and power, and the rest were dependent. Before books were made, and men learned to read them, a few men had the knowledge, and the rest were their tools—their hands.

There is no subject that requires a knowledge of so many things as agriculture, unless it be

medicine. No one man has the time, even if he had the means, to work out all the various kinds of knowledge which he needs; it would take a lifetime. We must be content to take it from others; and thus in a short time we can get more knowledge by reading, than we could get in a whole life, without it. The demand for books on agriculture, has increased greatly of late.—The facilities of communication in the vicinity of cities has led many business men to live in the country, and thus made a great many amateur farmers. They want agricultural knowledge for immediate application; they have not time to acquire it by experience; they go to work as they do in other business, and consult those who profess to teach the knowledge they want, just as they consult an architect, a mechanic or a seaman; they read books, and apply the knowledge they get; it may not always be the best, but it is the best they can get; it is better than none. This class of men create quite a demand for books of many sorts; this is a good class of men,—in fact the best class; they are active and energetic, and therefore successful; they are public spirited, and make good citizens in the towns in which they reside. Notwithstanding the farmers sometimes laugh at their operations, they impart a portion of their business energy to the farmers, and make experiments for them, which they would never try for themselves; and if they fail, they teach the farmer what cannot be done, as well as what can be.

At the present day, a periodical which keeps a man posted up in matters relating to his particular calling, is necessary to success. The minister, the physician, the lawyer, the mechanic, the merchant, the sportsman, the military man, must each have a magazine which contains the latest inventions, discoveries, and information relating to his business or profession; without this he cannot keep pace with his competitors. This is no less true in agriculture; hence, agricultural papers have become a necessity. If a farmer can read but one thing, let him read an agricultural paper; but papers are for the most part filled with short articles, hints, suggestions, single facts and experiments. If a man wishes to study a subject more fully, he must read books. Books upon agriculture, as I have already remarked, have rapidly multiplied, and are sold at a very low price. Libraries have been established, by means of which farmers may refer to a great number of books for a small sum. For those who can afford it, I think the best way is to own and always have at hand a few good books, and then add to the number one or two good books annually. I think they will, in this way, read and digest them better than when they are in a library at some distance, and they can keep them but a week or two, when they get them. Many say most good agricultural books, are books to be referred to frequently, rather than to be read at once. Still, it is well to have a library, containing many more books than one can afford to own.

Many of our agricultural books are of very little value; some of them are worse than nothing, because they mislead those who rely upon them; many are published by book manufacturers, and are mere compilations from other works, made by men who have neither sufficient judgment or experience to correct the errors and misstatements they contain. When I take up a book, and find it a mere compilation, by some man in the employment of a publishing-house, I shut it up; I have not time to read such a book. But when I find a book which is written by a man because he has something to say, I generally find that it pays for reading. I have frequently thought it would be a good thing, if some competent man would set himself to review the principal agricultural books in the market, and point out their excellences and defects, and publish the results of his investigation in some of the leading agricultural papers. Probably a good many authors and publishers would not thank him for his labor; until such a review has been made, I will not attempt to point out a list of books, which I would recommend to our young farmers.

For the New England Farmer.

MINISTER (WINTER) APPLE.

This New England fruit was introduced to notice by the late Robert Manning, of Salem. It originated on the farm of Mr. Saunders, of Rowley, in this State. The fruit is large and oblong, resembling in form the Yellow Bellflower, of New Jersey, readily identified from its beautiful stripes of red from stem to eye; it has been confounded with another, Rowley Seedling, which has been sold for the above. The true Minister apple, when gathered in the fall, is quite acid, but if kept into spring, becomes one of the finest fruits of its season. The skin of this apple is very thin, hence it requires to be gathered with the greatest care to prevent its being bruised. With that precaution, it will keep into May. I have one before me, raised upon the farm of R. S. Rodgers, Esq., of South Danvers, in the most perfect keeping, with its fine aroma. I have always found this variety to be a great bearer on a light and warm soil, as well as upon one of a more retentive nature.

J. M. I.

Salem, May, 1859.

UNDERDRAINING.

Some good land requires underdraining, to insure good crops. We might instance some of the land near Cleveland, which is a warm, sandy soil, but too swampy for cultivation, until drained of its surplus water. Soils which contain standing water within thirty inches of the top, must be underdrained, or they will not produce well. On such land, there is a constant drainage of water to the surface, as in a flower-pot, when the water is placed in a saucer at the bottom, but soon moistens to the top. Constant evaporation keeps the soil and air cold, and excludes the air from the soil, which is wanted there, that the oxygen in it may decompose the vegetable matter in the soil, and change the poisonous protoxide of iron into the beneficial peroxyde. This kind of land is composed of a hard clay sub-soil, on the top of which is a layer of sand. If the water cannot penetrate the clay, it is held, as in a saucer, and unless drained off, its only way of escape is by rising to the surface and evaporating. This will soon drown out everything but water-grass and pond lilies.—*Ohio Farmer.*

ASHES AGAINST PLASTER.

Many farmers will expend money freely for plaster, and consider it a profitable investment, but at the same time throw or give away their wood ashes! At least, such has been the case. This is poor economy. While we regard plaster as a valuable article, we, at the same time, rank wood ashes much higher in the scale of fertilizers. It is true that no very accurate experiments have as yet been made to ascertain precisely the specific value of plaster and ashes; yet every one who has applied them to his soil and growing crops must have seen enough to convince him that both are serviceable, and especially that ashes should always be collected and preserved with care. In the *"Buckeye Plowboy,"* some years since, a writer apparently desirous of placing this subject in its proper light, but with somewhat less minuteness of detail than is perhaps requisite to the consummation of such an undertaking, details a single experiment instituted by himself as follows:

"I took three rows in a small piece of corn by the side of my garden, and put a handful of ashes on each hill of one row, a teaspoonful of plaster on each hill of another, and the third, left without putting on any of either. I cultivated them all alike, hoeing them twice. During the season some pigs got in and rooted up one end of the rows, leaving but about five rods of each that came to maturity. In the fall I husked the rows, as far as they had not been injured, and weighed the ears of each:

Weight of the ashed row	49½ lbs.
Weight of the plastered row	48½ "
Weight of the row which was neither ashed nor plastered	41½ lbs.

The ground was green-sward, turned over in the spring, the soil clay, inclined to loam."

We present the following analysis of the ashes of the sapwood of white oak, *(Quercusalba.)*

Potash	13.41
Soda	0.52
Sodium	2.78
Chlorine	4.24
Sulphuric acid	0.12
Phosphate of Peroxide of Iron, Phosphate of Lime, Phosphate of Magnesia,	32.25
Carbonic Acid	8.95
Lime	30.85
Silica	0.21
Magnesia	0.36
Soluble Silica	0.80
Organic matter	3.70
	100.19

Many analyses have been made of the corn crop, and the following, embracing the ashes of the kernel, leaves and cob, we give, in order better to enable the reader to understand *why* ashes applied to this vegetable, as a manure, must necessarily be productive of beneficial effects.

Analysis of the ash of the kernel of white flint corn, "grown on a sandy soil, and manured in part with *coal* ashes."

Silica	9.500
Alkaline and earthy Phosphates	35.500
Lime	0.160
Magnesia	2.410
Potash	23.920
Soda	22 590
Chlorine	0.405
Sulphuric Acid	4.335
Organic matter	0.367
	99.237

Analysis of the ashes of the leaves:

Silica	53.550
Earthy Phosphates	19.250
Lime	6.092
Magnesia	1.250
Potash	12.762
Soda	8.512
Chlorine	0.762
Sulphuric Acid	4.185
	115.363

Analysis of the ashes of the cob:

Silica	13 600
Earthy Phosphates	23.924
Lime	0.300
Magnesia	0.900
Potash	35.802
Soda	5.914
Chlorine	0.132
Sulphuric Acid	0.345
Organic matter	2.314
Carbonic Acid	6.134
	89.365

The reader will not fail to observe how largely those elements prevail which are the most important to nearly all plants, such as the earthy phosphates, the potash, soda, and silica, or sand. He will observe, too, that they are far from being insignificant even in the *coal ashes*. If this analysis is correct—and we have no reason to doubt it—coal ashes ought to be more generally preserved and used as a fertilizer.

The ashes of all wood are composed very nearly of the same materials, and so far as effects upon vegetation are concerned, it is of very little consequence whether they are from oak, elm, maple, or any other variety. Ashes from soft wood are said to be less valuable; but we have high authority that the ashes of the hardest oak and the softest pine vary but a trifle in the materials which compose them.

For the New England Farmer.

THE PIONEER FARMERS' CLUB.

MR. EDITOR:—Some little time since, as we were about taking measures to institute a Farmers' Club, I sent a request that you would offer some suggestions in regard to its formation. You very kindly complied by an article just suited to our peculiar necessities. If the result of our effort will be of any interest to you and any encouragement to others to form similar associations, I will briefly describe our success, hoping that it may not exclude more important matter from the columns of that weekly visitor, which, to use the words of a grey-headed neighbor of mine, "tells more about farming every week than we ever knew."

Having completed such an organization as our circumstances required, our President visited Mr. Secretary Flint, and obtained a package of books which laid the foundation for a valuable library.

Other volumes have since been purchased from the funds of the Club, and we have now a respectable little library, which has been repeatedly consulted and referred to by those who have taken part in the discussions, and from which a great amount of useful information has been derived.

The discussions have been animated, and have laid bare a vein of thought which has hitherto been little worked.

Even the ladies, without whose aid no good cause has ever prospered, have been constant attendants at the meetings, and have contributed to their interest by reading a manuscript paper entitled "*The Farmers' News.*" Gentlemen of no professed literary talent have prepared and delivered addresses, which, if not in beautiful sentences and well turned periods, in practical though and useful principles would bear a favorable comparison with those delivered at the dinner tables of the exhibitions of some of our county societies. At a recent meeting, a full grown apple tree borer which had been preserved alive, and without food, for a period of more than three weeks, was exhibited, and his habits explained by a gentleman present. An antiquated looking spade which had been known among men a hundred years, and which presented a striking contrast to the well-finished implements of modern days, was exhibited by another gentleman.

But I should occupy altogether too much space should I attempt to tell one-half that is interesting concerning this little institution, which has been to us, and something similar to which would be to every neighborhood, an invaluable means of acquiring practical information in regard to that profession which has been honored by such men as Cincinnatus and Virgil of ancient, and Washington and Webster of modern times.

G. A. ADAMS, *Secretary.*

Hopkinton, May 11, 1859.

TO RAISE POTATOES.

A correspondent—Wm. Aldridge, of Goreland, Ind.—writing to the *Prairie Farmer*, states that having noticed how potatoes were interrupted in their growth, and invariably pined away and died if disturbed and bruised when wet with dew or rain, he selected a patch of a potato field, the whole of which was good soil, and in good order to try an experiment. This patch he only plowed once, and then loosened the soil with the hoe when the vines were above ground, and in the heat of the day when they were perfectly dry. He never touched them afterward until they were dug in October last year. These vines kept green throughout the season, and the yield of potatoes was very large. The other portion of this same potato field was purposely worked three times, when the vines were wet with dew. These blighted early, did not produce half a crop, and the potatoes were of a very inferior quality. The ground, seed, and time of planting in both patches, were the same.—*Scientific American.*

CURCULIO.—A remedy for this pest is proposed in the *Ohio Valley Farmer*, by Mr. Walker, of Kentucky. As soon as the fruit is attacked, take a tin pan into which soapsuds has been placed to the depth of an inch or so; place it in the tree, and place a small glass globe lamp in the middle of the pan, which permit to burn all night. In darting towards the light, the curculios strike the glass, and are precipitated into the liquid, from which they are unable to extricate themselves.—*Homestead.*

FARM DRAINAGE.

We cannot too earnestly call the attention of readers to the subject of draining their lands.—We ask them to make a single practical test, in a proper manner, on a small piece of land, and then they will be able to decide for themselves whether draining will not save them a great deal of hard labor, and at the same time greatly increase their crops. Believing this *will be the result*, we shall present such portions of Judge FRENCH's excellent work on "Farm Drainage," as we think will induce them to commence the good work.

An acre or two of land which we thoroughly underdrained two years ago, laying the pipes down four feet below the surface, has been affected about as much as though the season had been lengthened some three weeks, or the land had been removed south as far as New Jersey.

Below we give an extract from the recent work on Drainage spoken of above:

Drainage is a new subject in America, not well understood, and we have no man, it is believed, peculiarly fitted to teach its theory and practice; yet the farmers everywhere are awake to its importance, and are eagerly seeking for information on the subject. Many are already engaged in the endeavor to drain their lands, conscious of their want of the requisite knowledge to effect their object in a profitable manner, while others are going resolutely forward, in violation of all correct principles, wasting their labor, unconscious even of their ignorance.

In New England, we have determined to dry the springy hillsides, and so lengthen our seasons for labor; we have found, too, in the valleys and swamps, the soil which has been washed from our mountains, and intend to avail ourselves of its fertility in the best manner practicable. On the prairies of the West, large tracts are found just a little too wet for the best crops of corn or wheat, and the inquiry is anxiously made, how can we be rid of this surplus water.

There is no treatise, English or American, which meets the wants of our people. In England, it is true, land-drainage is already reduced to a science; but their system has grown up by degrees, the first principles being now too familiar to be at all discussed, and the points now in controversy there, quite beyond the comprehension of beginners. America wants a treatise which shall be elementary, as well as thorough—that shall teach the alphabet, as well as the transcendentalism, of draining land—that shall tell the man who never saw a drain-tile what thorough drainage is, and shall also suggest to those who have studied the subject in English

books only, the differences in climate and soil, in the prices of labor and of products, which must modify our operations.

With some practical experience on his own land, with careful observation in Europe and in America of the details of drainage operations, with a somewhat critical examination of published books and papers on all topics connected with the general subject, the author has endeavored to turn the leisure hours of a laborious professional life to some account for the farmer. Although, as the lawyers say, the "presumptions" are, perhaps, strongly against the idea, yet a professional man *may* understand practical farming. The profession of the law has made some valuable contributions to agricultural literature. Sir Anthony Fitzherbert, author of the "Boke of Husbandrie," published in 1523, was Chief Justice of the Common Pleas, and, as he says, an "*expeyenced farmer* of more than 40 years." The author of that charming little book, "Talpa," it is said, is also a lawyer, and there is such wisdom in the idea, so well expressed by Emerson as a fact, that we commend it by way of consolation to men of all the learned professions: "All of us keep the farm in reserve, as an asylum where to hide our poverty and our solitude, if we do not succeed in society."

Besides the prejudice against what is foreign, we meet everywhere the prejudice against what is new, though far less in this country than in England. "No longer ago than 1835," says the *Quarterly Review*, "Sir Robert Peel presented a Farmers' Club, at Tamworth, with two iron plows of the best construction. On his next visit, the old plows, with the wooden mould-boards, were again at work. 'Sir,' said a member of the club, 'we tried the iron, and we be all of one mind, that they make the weeds grow!'"

American farmers have no such ignorant prejudice as this. They err rather by having too much faith in themselves, than by having too little in the idea of progress, and will be more likely to "go ahead" in the wrong direction, than to remain quiet in their old position.

FEEDING OFF PASTURE LAND.

"It is certainly advantageous to pastures," says Thaer, "to remove the cattle from them now and then, in order that the grass may have time to recover itself. For this reason, on the best conducted farms, the pasture land is divided into separate parts. The animals which require the most succulent and nourishing food are first turned to each separate division, and after they are removed, the other kinds, which need a smaller quantity of nutriment, are fed there. By this means the whole of the grass is eaten, those kinds to which cattle are least partial with the rest. The herbage is then left to recover itself for a sufficient time, and afterwards the first herd is again allowed to feed upon it."

This system possesses decided advantages over the practice of suffering the cattle to wander over the whole extent of pasture ground. If the space is large, a great deal of herbage is spoiled or destroyed by the trampling of the cattle; the pasturage is never uniformly eaten off, but some portions are left to grow until it becomes dry and hard. The luxuriant but distasteful herbage is constantly increasing, and in time crowds out the finer kinds, already lessened by being cropped so closely and continually. Another advantage is, that stock are more quiet, and consequently feed better and keep in better health.

The succession of the various kinds of stock must be regulated by the circumstances of the owner. Thaer says, that in spring the best pasturage is often given to ewes, because it is needed to increase their supply of milk, and give them strength to nurse their lambs. The grazing of lands with sheep in spring, if not allowed too long, has a tendency to thicken the growth of grass. But they cannot be followed by cattle immediately, with advantage; at least three weeks should intervene, to allow the smell of their dung to dissipate, and the grass to get a fresh start.—*Country Gentleman.*

For the New England Farmer.

ORNITHOLOGY.

MR. EDITOR:—I do not see as any of the advocates for the preservation of robins advance one idea in their favor, except their singing; no injurious insect do they prove that they destroy. I will admit that for fructiferous birds nature requires some animal food, but the robin never takes any except the angle-worms, where they can be found.

In Vermont and New Hampshire angle-worms are very scarce; in many places in these neighborhoods one square foot will contain more of these insects than hundreds of acres in those States. Trout fishers know well that one dollar per gill is the standard price at the White Mountains for them to be used for bait. Such scarcity will account for writers in these States asserting that they eat grubworms, which, under those circumstances, I will not dispute. But where angle-worms abound, grubworms need procure no life insurance.

To my mind, the robin possesses no taste; it selects and takes its food to the fancy of its eye; for we observe them eating every variety of fruit, selecting the most beautiful and mellow, including all kinds, from the strawberry to the most sour apple, providing it is yellow and handsome; but after these are gone, they eat, with apparent relish, the cedar and buckthorn seeds, though intensely bitter. Sometimes I am led to think, when I see him attack an angle-worm, and gulp him down his throat, as if he loathed him; like a child taking Epsom salts, he is only gratifying his vicious destructiveness.

The two lower counties of New Jersey are almost entirely covered with wintergreen loaded with berries. Extracting essential oil from the plant is the employment of many of the inhabitants. Those extended wastes are the home of the robin, in winter, living exclusively on the berries of that plant. That locality is the robin's northern winter limit, extending from there south to the Gulf of Mexico.

Our statute law fines us two dollars each for every robin which we may put in a pot-pie; so a respectable sized pie may cost us fifty dollars, besides the materials, the fine to go to any re-

vengeful scape-goat who may enter the complaint.

I inquire where the committee appointed by the wisdom of the State is? I saw their report of the habits of the robin before the fruit season; they reasoned that they were not a fruit-eating bird; where is the basis for such reasoning? Neither are our convicts confined in prison rum-drinkers while there, simply because they cannot gratify that appetite. Who ever heard of robins eating fruit in March, April or May?

Legislation talks about insect defalcation, depredation and destruction. Their microscopic eyes, however, never discern the ravages of the gilded, cowardly robin, whose cowardice induces him to locate near dwellings, that his craven spirit may never be aroused to defend his domicil from the depredation of his kind, fleeing, like the one whose protege he is, when no one pursueth. N.

South Danvers, 1859.

For the New England Farmer.

THANKSGIVING DAY AT THE SANDWICH ISLANDS.

MAKAWAO MAUI, HAWAIIAN ISLANDS, DECEMBER 30, 1858.

EDITORS FARMER:—*Gentlemen*,—Reminded by the closing year of my delinquency in writing you, I hasten to devote a part of this day of public thanksgiving to this purpose. The occasion will suggest a subject of interest to you and your readers, as Thanksgiving day, though at a distance, will remind them of scenes in which they all delight to participate.

"Hawaiian Thanksgiving!" do I hear you exclaim? with the remark, "You can be as thankful, certainly, as any of us, and God, who is no respecter of persons, will accept your gratitude. But as for the Thanksgiving supper, with tables groaning with New England luxuries, around which gather hosts of friends, this, of course, you know nothing about. A dish of poi and a baked dog or raw fish spread on a clean mat, or on some fresh ferns, will doubtless constitute your Thankgiving repast." Well, friends, I mean to take in good part this specimen of banter which I have supposed you might employ when hearing that the king and chiefs of Hawaii are so far adopting the customs of New England, as to appoint a day of thanksgiving and prayer to God, for His kindness to the nation during the past year. Nor will I deny that both chiefs and people are calculating somewhat largely on thrusting their fingers into the poi dish, and thence to their mouths, ere the day closes; nor do I doubt that many a fat and sleek animal of the canine species is now in an oven of hot stones remunerating in part the expense of feeding. I am not horrified in relating, and I hope you will not be in hearing, that dogs are often strangled and eaten by chiefs and people. Foreigners, generally, universally perhaps, cry out, *shame, shame*, at the practice. I know not that any of them, *knowingly*, eat of this dish, though I shrewdly guess that more than one gentleman from enlightened lands when dining with the chiefs of Hawaii, have eaten with a gusto from a creature whose vernacular was bow-wow, instead of baa, as they supposed. I know not as I have ever tasted dogs' flesh. I have no particular desire to do so. Still, I see no moral wrong about it, nor do I feel like dissuading my people from such a practice. *De gustibus non disputandum est*, or, let there be no disputing about tastes, is a maxim which is worthy of consideration. Most heartily do I wish that the men from our country would do nothing worse than eat dogs' flesh.

But to return to the subject of Thanksgiving supper, which seems to be a *sine qua non* in the idea of a Puritan Thanksgiving. I am glad that you feel a doubt of our ability to get up a supper on this occasion, which will at all compare with yours, as in laboring to remove this doubt, I shall be able to tell you of the change in our circumstances since March, 1828, when, as one of the second reinforcement, some eight years after the establishment of the mission, I landed at Honolulu.

At that time there were no Thanksgiving days appointed by the government, and had there been we could not have got up much of a supper. Our flour was very poor, sour, and often musty. Butter and cheese, fresh beef and mutton we rarely tasted. Salmon from Oregon we could obtain, but without Irish potatoes and butter, this scarcely relished. Molasses we used for our tea and coffee. We had an occasional fowl, but as we bought them of the natives, they were lean and unsavory. Of vegetables we had kalo and sweet potatoes—of fruit, bananas or plantains—also, melons. These were our facilities in 1828 for getting up a Thanksgiving supper. In 1829 no flour having arrived from Boston, there was much suffering in the Mission families at Honolulu, and the health of not a few individuals was greatly affected. Since that time there has been a gradual improvement in the means of living so that to-day, we can have a Thankgiving supper purely Hawaiian, composed of the following dishes, viz.: Baked beef and lamb, both beautifully fat and tender, and good enough for John Bull himself; fine large and fat turkey and baked fowl; excellent mullet from fresh water ponds; roasted pig fed on milk, tender and savory; potatoes, both Irish and sweet; kalo, of which the poi is made, but which boiled or roasted is excellent; bananas or plantains cooked in almost as many ways as your apple, and, on the whole, an excellent substitute; bread fruit, onions, beans and lettuce, Indian corn, tomatoes and cabbage. To these vegetables, there can be added at some of our stations, turnips, beets and carrots. Bread, of course, at Makawao, must not be forgotten. This we have plentifully, made of coarse meal ground in our hand-mills or fine bolted at our steam mill at Honolulu. With these ingredients we can have chicken pie; also, custards, as sugar, eggs and milk are abundant; pumpkin and banana pies likewise. Butter and cheese, with fig, guava and ohelo—Hawaiian whortleberry—preserves. Pia or arrow-root puddings, Hawaiian coffee with cream and sugar. A part or all of these we can furnish for our supper this evening—also melons, oranges, guavas and figs. Or if our friend, Dr. Alcott, will sup with us, he shall have good baked potatoes and bread, pia, also, with figs and oranges. Please recollect, gentlemen, that I did not spread this table to cause a surfeit, but to show you what a change the blessing of God on

industry has wrought in our circumstances of living since 1828.

Evening.—I have just returned from the house of God, where I addressed our people on the goodness of their heavenly Benefactor during the year which is near its close. It has been, on the whole, a year of prosperity to the Hawaiian nation. Health has prevailed as a general thing. Peace has blessed the nation with its balmy influence. The earth has yielded her usual increase, so that to-day we may justly speak of the watchful care of a benignant Providence, and of the loving kindness of God to us all. In addition to the products of the earth purely Hawaiian, there have been sown and reaped a larger number of acres of wheat in this district than ever before, and though a good deal of this was destroyed by the caterpillar, still some 16,000 bushels were secured and sold, besides a good deal reserved for seed. Considerably many oats were raised, also corn and beans. Besides these essentials, the islands are fast developing their capabilities of producing fruit. Oranges are becoming increasingly plenty. Peaches, also, will soon become abundant. Figs have long been so, also guavas and custard apple. I have not a doubt that Hawaii will become famous as a fruit-growing country. In this prospect I greatly rejoice, and I am exhorting the people to turn their attention more to fruit-growing. Oranges and figs eaten freely would conduce much to the physical health and enjoyment of all classes among us. Some of them are beginning to think more favorably of this department of labor and enterprise. The growing of wheat, however, at present secures most of their attention. Though it is not a very profitable branch of enterprise still multitudes wish to try their hands at it, and as the Hawaiian Steam Flouring Company pay cash for wheat, an increasing number are thrusting in the plow, and scattering the seed over the furrowed fields. One benefit the people are certainly deriving from the introduction of wheat into their country,—they are forming habits of industry. In this I greatly rejoice. Of the success of their labors I will tell you in my next communication.

Yours with respect, J. S. GREEN.

For the New England Farmer.

THE APIARY—BEE HIVES.

MR. EDITOR:—In the *Farmer* of January 7 I noticed an article concerning bee hives, which has led me to give a description of a hive of my own construction. In the first place, make a simple box twelve inches square inside, and twelve or fourteen inches high, as the apiarian may determine. The top board should be fastened on with screws. The sticks to support the combs should run crosswise of the hive, and made a little shorter than the width of the inside, and fastened by nails driven through the sides of the hive, in such a manner as to be easily drawn with a hammer. Now whenever it becomes necessary to take out the contents, you have only to sever the comb from the inside of the hive, draw out the nails from the sticks that support the combs, and take out the screws from the top, then raise the contents all out whole, cleaving to the top board without injuring the hive.

Having explained the why and wherefore, I will go on with the construction. Now make a passage crosswise through the top board the whole width of the inside of the hive, one-half inch in width, for the bees to pass up into the boxes. Nail flat bars one inch in width on the under side of the top board lengthwise, or from front to back. To cause the bees to build in the centre of the bars, stick a piece of comb on to each bar by dipping it into melted wax, and applying it immediately.

I prefer the flat bars, because there is no patent claimed on them, and then it is less work to stick on the combs than to make the bevel bar of the Union Hive. And the passage through the top when the boxes are inverted, answers the purpose of the hollow roosts of the Union Hive. The boxes are made with holes bored in the bottom. I usually make two passage ways across the top of the hive, with a hole in each end of the boxes exactly over the passage. I prefer holes in the boxes to a long passage to correspond with the passage in the top board, because the queen will not be so liable to enter the boxes and deposit her eggs there, thereby converting the contents into brood comb. At the same time, the bees can pass up between all the combs into the passage way, thence to the holes in the boxes.

Now for a contrivance for your correspondent from Leominster. Bore two holes in the front of the hive under the top board, exactly in line with the holes in the boxes; to be closed by a button, and opened when the bees are at work in the boxes, and for purposes of ventilation.

The cap to cover the boxes is made to shut over the outside of the hive, and rests on cleats, and to fit the bottom as well as the top of the hive, for the purpose of wintering bees in the house; the cap should also have a ventilator. Now invert the cap and raise the hive from the stand; set it into the cap resting on cleats upon the outside of the hive, then carry it to some dark closet, open the ventilator and take off the boxes, and your bees will come out dry and clean in the spring. N. K. L.

Otter River, May, 1859.

TO KEEP MOTHS FROM FURS AND WOOLLENS.—Shake and beat them well, then tie them up *tight* in a cotton or linen bag, and hang them in a dry place, or put them into a chest. Nothing else is necessary. This process is effectual, because the miller cannot get in to deposit its eggs. It shuns camphor, tobacco, or anything else of the kind, as much as a hungry boy would a good apple. We once deposited some nice furs in the centre of a cask of tobacco; but the moth cared as little for it as for a cask of rose leaves, and ruined our furs. Tie up the furs, and they will be safe.

WHEEL HOES.—Every person who has half an acre in carrots, parsnips, onions, &c., all told, ought to have a wheel hoe. He can raise ten bushels of carrots or onions as easily with one, as he can *five* without one. Wont that pay?

MOWING MACHINES.

The favorable weather of May and early June has brought the grass forward with wonderful rapidity, so that by the 25th instant many fields will be ready to harvest. Our friends will do well during the haying season to cut a portion of their grass quite early, and then in feeding it out during the winter, observe what the comparative value is of grass cut early and made into hay, and that cut when more mature. We have the impression that the early cut grass is much the most valuable; that is, cut in its early bloom. It is sweeter, less hard and wiry, and cattle, so far as our observation has extended, eat it with a greater relish than they do later cut grass.

Another query is, whether a large portion of our hay is not cured too much—that is, over-made, dried until it is almost juiceless, brittle, hard and innutritious. Grass cut just at night, and *well tended* during a bright July day, can be sufficiently dried to go in, by four o'clock in the afternoon—and if a gentle breeze is moving, even earlier.

Those whose lands will admit the use of a mowing machine, and who have not yet used one, have not realized the "aid and comfort" they may derive from the use of a good one. Ketchum's, we believe was the first introduced on our Massachusetts farms. This has been re-modelled and greatly improved, and one has been recently constructed for one horse, which we gave a cut of some weeks since. Manny's has been quite extensively used, has been much improved, and is now fitted for one horse, and seems to us calculated to do good work. We have not seen it in motion. Then there is Allen's, Russell's, the Buckeye, Wood's, Thompson's, Gore's, &c., of which we have no particular knowledge, and can give no opinion of them. Some of those already constructed, we feel quite confident, will work well enough to pay their cost in a few years, so that, although they may not be perfect, there will be no loss in purchasing and using them.

HORSE RAKES AND HAY TENDERS.

The prejudice against the use of Horse Rakes in haying has gradually yielded as they have been more generally brought into use. There are several kinds, the poorest of which are worthy of introduction, in preference to the sole use of the hand rake. The "Revolver" works clean and well, is cheap, not liable to get out of order, and requires little room when not in use. But it ordinarily takes two persons to use it, or, if only one, one of the best hands in the field, and is a hard and exhausting labor. The spring tooth rakes clean, too clean, usually takes two hands to work it, and is hard work for man and beast. It is sometimes mounted upon wheels, so that the operator can ride, and in that form is said to be a good rake. We have not used it. The "Delano, or Independent Aetion" rake, when well constructed, rakes clean, is easy for the operator and the horse, and performs the work with great rapidity. A stout boy of fifteen or sixteen years, will rake after as many carts as half a dozen men can load at one time, and a skillful manager can do all the heavy part of cocking with one, after he has got the hay into winrows.

We understand that Messrs. NOURSE, MASON & Co. have in process of construction a *Hay Spreader* made in connection with a Horse Rake, so that either can be used at will. Those who are competent to judge, inform us that it will be a capital machine. We await its advent with some impatience.

For the New England Farmer.

VALUE OF CARROTS FOR MILK PURPOSES.

MESSRS. EDITORS:—I observe that the value of roots for stock is considerably agitated of late. A thorough discussion of this subject must comprehend three departments of utility, viz., their value in increasing the *quantity* of milk, their value in improving the *quality* of the milk, and lastly, in what *comparative condition* the experiment leaves the stock. As all neat stock is destined in the end for the shambles, no experiment can be fully satisfactory under either of the two first heads, that does not also state how far it promoted this end; still, as far as such an experiment goes, it has its value, but the limits of its teachings should be noted. Of the value of carrots for milk purposes, one of our enterprising farmers, Mr. MASON COURTIS, recently narrated to me the result of an experiment of his, which, as it was made with care, and the result made a memorandum of, at the time the experiment was made, appears to be well worthy of record.

On Christmas last, he began to feed four cows with cut carrots, of the orange variety, giving two pecks daily to each animal, which was continued until the 20th of March, as long as the carrots held out. During this period, the yield of milk from the four averaged forty quarts daily. Immediately after the carrots were gone, the cows fell off regularly and rapidly in their yield of milk, and in thirteen days had fallen off eleven quarts, when they yielded a constant supply for a fortnight, after which, being fed with a daily proportion of meal, they increased their yield.

In the whole course of the experiment, they were fed with second crop hay, the hay having been proportionally increased after the carrots were exhausted. They were regularly watered and always milked by the same person.

Marblehead, June, 1859. J. J. H. GREGORY.

☞ There are six or seven generations of gnats in a summer, and each lay 250 eggs.

HAY CAPS.

Those of our friends who procure and use half a dozen Hay Caps, in getting their hay and grain the present summer, will be quite sure to treble or quadruple the number next summer. If the season should prove a "catching one," they will save their cost on their present crops. Never mind what disaffected grumblers say, who are determined not to "haw" or "gee" only as the antediluvians did,—but get a few and try them. Let old fogydom go to mill on a drag, if it pleases, while you sit on a well-stuffed seat and eliptic springs. You will find your grist none the less sweet, or coarser, for bringing a little art to your aid. But try the hay caps, for several reasons:

1. You can make hay much faster with them, even in good weather.
2. Your hay will be better partially made in the cock, under caps, than it would be made entirely in the sun. Persons who put up herbs for medicinal purposes, where it becomes necessary to retain all their virtues, never dry them in the sun.
3. As the haying season is short, you can have more grass down at once by the use of caps, and thus get through haying quicker.
4. The quality of your hay made under caps will be 10 per cent. better; it will be sweeter, brighter, less dusty, and go farther in feeding out, provided the season is unfavorable for making.
5. You will save their entire cost in obviating the necessity of cocking and spreading out again, quantities of hay which you can thoroughly make with their aid.

Something was said last summer of a patented hay-cap, and permission was given us by the inventor, Mr. Dinsmoor, of Auburn, N. H., to try them. We did so, and found them much superior to any we had before seen. The right to make and sell these is now entirely invested in Messrs. *Chases & Fay*, Boston, whose cut above, illustrates the manner in which caps are used. They also make caps from prepared cloth, which they say will not mildew.

CLEAN MILKING.—It is a matter of great importance that the milk should all be drawn from the cow's udder. Careful experiments made in England show, that "the quantity of cream obtained from the last drawn cup, from most cows, exceeds that of the first in a proportion of twelve to one." Thus a person who carelessly leaves but a teacup full of milk undrawn, loses in reality about as much cream as would be afforded by four or six pints at the beginning; and loses, too, that part of the cream which gives the richness and high flavor to the butter.—*Country Gentleman.*

REMEDY FOR THE STRIPED BUG.—Having but few boards at hand suitable for making frames, but plenty of old bricks, I took a wheelbarrow load of the latter, and stood four or five of them on edge around each hill of melons, etc., as soon as the young plants made their appearance; and in ten days' trial I have not found a bug inside these little pens, while some plants left outside were entirely devoured by them. The bricks also promote the growth of the young plants, by protecting from winds, and giving out heat at night absorbed during the day.—*Exchange.*

BENEFIT OF DROUGHTS.

It may be a consolation to those who have felt the influences of long and protracted dry weather, to know that droughts are one of the natural causes to restore the constituents of the crops, and renovate cultivated soils. The diminution of the mineral matter of cultivated soils takes place from two causes.

First. The quantity of mineral matter carried off in crops and not returned to the soil in manure.

Second. The mineral matter carried off by rain water to the sea by means of fresh water streams.

These two causes, always in operation and counteracted by nothing, would in time render the earth a barren waste, in which no verdure would quicken, no solitary plant take root. A rational system of agriculture would obliterate the first cause of sterility, by always restoring to the soil an equivalent for that which is taken off by the crops, but as this is not done in all cases, Providence has provided a way of its own to counteract the *thriftlessness of men*, by instituting droughts at periods, to bring up, from the deep parts of the earth, food on which plants might feed when rains should again fall. The manner in which droughts exercise their beneficial influence is as follows: during dry weather, a continual evaporation of water takes place from the surface of the earth, which if not supplied by any from the surface creates a vacuum, (so far as the water is concerned,) which is at once filled by the water rising up from the subsoil of the land; the water from the subsoil is replaced from the next below, and in this manner the circulation of water in the earth is the reverse of that which takes place in wet weather. This progress to the surface of the water in the earth manifests itself most strikingly in the drying up of springs and rivers, and of streams which are supported by springs. It is not, however, *only the water* which is brought to the surface of the earth, *but also all that which the water holds in solution.* These substances are salts of lime and magnesia, of potash and soda, and indeed, whatever the subsoil of deep strata of the earth may contain. The water, on reaching the soil, is evaporated, and leaves behind the mineral salts which I will here enumerate, viz: lime, as air slacked lime; magnesia, as air slacked magnesia; phosphate of lime, or bone earth; sulphate of lime, or plaster of paris; carbonate of potash and soda, with silicate of potash and soda, and also chloride of sodium or common salt: all indispensable to the growth and production of plants which are used for food. Rain water, *as it falls from the clouds,* would dissolve but a *very* small proportion of some of these substances; but when it becomes soaked into the earth, it there becomes strongly imbuded with carbonic acid from the decomposition of vegetable matter in the soil, and thus acquires the property of readily dissolving minerals on which it before could have very little influence. I was first led to the consideration of the above matter from a perusal of a lecture of Professor Johnston, on this subject, and on a re-examination of some soils which were analyzed some years since, there was perceptible a larger quantity of a particular mineral substance than was first found. And as none had been applied in the meantime, the thing was difficult of explanation, until I remembered the late long protracted drought. I then also remembered that in several of the provinces in South America, soda was obtained from the bottoms of ponds, which were dried in the dry, and again filled in the rainy season. As the above explanation depended on the principles of natural philosophy, experiments were at once instituted to prove the truth. Into a glass cylinder was placed a small quantity of chloride of barium in solution; this was then filled with dry soil, and for sometime exposed to the direct rays of the sun on the surface. The soil on the surface of the cylinder was now treated with sulphuric acid, and gave a copious precipitate of sulphate of baryta. The experiment was varied by substituting chloride of lime, sulphate of soda, and carbonate of potash, for the chloride of barium; and on the proper resolving agents being applied, in every instance the presence of these substances were detected in *large* quantities on the surface of the soil in the cylinder. Here then is proof positive and direct, by plain experiment in chemistry, and natural philosophy, of the agency, the ultimate beneficial agency of droughts.

We see therefore in this, that even those things which we look upon as evils, by Providence, are blessings in disguise; and that we should not murmur even when dry seasons afflict us, for they too, are for our good. The early and the later rain may produce at once abuudant crops; but dry weather is also a beneficial dispensation of Providence, in bringing to the surface food for future crops, which otherwise would be forever useless. Seasonable weather is good for the present; but droughts renew the storehouses of plants in the soil, and furnish an abundant supply of nutriment for future crops.—GEO. TROWBRIDGE, *Camden, N. Y., in Ohio Valley Farmer.*

THE SEASON.

The promise is at present strong for abundant crops. The hot days which we had about the middle of May brought the plants forward with great rapidity,—but the cooler weather since has given them a desirable check, so that they have grown stocky and strong, instead of aspiring to reach the skies.

The apple blossom has been full in this region The cherry blossom only moderate, while we have met only two farmers who have seen a peach blossom this spring!

A copious rain fell here on the night of the 31st of May, and the ground is well wet below, —so that if little or no rain should fall before haying, the grass crop will be an average one. Hay still commands a somewhat high price, however, in consequence, we suppose, of the high price of grain, as it brings readily in our market, from $1,00 to $1,15 per hundred pounds, according to its quality.

Planting was somewhat delayed by the northeast storm which occurred in the last half of May; but the crops were got in seasonably, not-

withstanding, and the grain crops are up and appearing well. Corn has come up promptly, and looks well, and so do many fields of potatoes.

Winter rye and winter wheat are of good height, and fine color, and have a fine start for rich harvests. Spring wheat also looks well.

As the season progresses, the fatal effects of the winter are more and more obvious. A gentleman informs us, that of one hundred peach trees that have been in bearing two or three years, not one is left to be of any value, while one hundred and fifty trees that have not yet come into bearing are not in the slightest degree injured. Grape vines, quince bushes, and various shrubs that have shown no signs of starting until within a few days, are now pushing buds, and possibly may recover from the palsying stroke which they received. Grass has been badly winter-killed, which leaves many fields with rather a leprous appearance.

What has been the cause of this widely-spread destruction? Who can tell us? Was it extreme and sudden variations in temperature, the great depth to which the frost penetrated, or did the impenetrable covering of ice, which, resting upon the surface during a good portion of the winter, cut off a certain aeration or breathing, necessary to the plants? Who will solve these mysteries for us, and enable us, by the exercise of enlightened art, to protect ourselves against future ravages of a similar nature? Surely, the farmer needs the best native ability, the most varied and abstruse learning, and the exercise of the ripest judgment, to penetrate the arcana of nature, and tell us how to avoid the losses which are perpetually occurring.

On Friday morning, June 3d, there was a brisk thunder shower in this region, the first of the season.

For the New England Farmer.

ABOUT PRUNING.

MR. EDITOR:—I had seen, in the *New England Farmer*, many articles on the pruning of trees. I believe it is time that the subject, and the discussion of the subject, should be pruned. As you and your May number appear to be almost cloyed with the subject, I feel some hesitancy in undertaking it, with my dull tools. But in doing it, I pledge myself that the sap shall not flow very copiously from my head, nor from my pen.

The object of pruning is to rid the tree of its superfluous branches. The right time of pruning is, when the sap is gone up, and is elaborating, by vegetable process, in the formation of a pulpy substance, *(cambicam,)* which becomes wood; and adds one grain to the tree. If a limb be cut off at this time, the new wood forms between the bark and that part of the limb which remains. Thus a covering begins to be formed over the naked wood, where the amputation was made; and this process goes on from year to year, till the whole is covered; the wound is healed.

If it be asked, when does this pulpy substance between the bark of the wood commence in fruit trees, I shall not answer by giving the date; for there is more than three weeks difference in different seasons. But I am prepared to say, it takes place about the time the blossom bud is ready to open. Different kinds of trees require different times for pruning. The pine should be pruned about the middle of June. I make these remarks, not with the expectation of convincing any one who has expressed a different opinion, but to relieve my own mind of an item of knowledge, which I have had on hand, and in hand, many years.

Now I recommend it to any one, and to every one, who feels interested in the subject, to make the following experiment. At the middle of each month in the year, take a limb from the same tree, or from trees of the same class, and notice definite and minutely the result. Knowledge gained in this way is one's own knowledge, and it is as much better than borrowed knowledge, as earned capital is better than borrowed capital.

Milford, N. H., May 24, 1859. H. M.

For the New England Farmer.

"RUTA BAGA AND CORN CROPS."

I fully concur with Mr. Brigham, (in your paper of the 28th of May,) in relation to the culture of the ruta bagas or any of the turnip tribe. From a long experience in the cultivation of the soil, I am convinced that the turnip is one of the most exhausting crops that the farmer cultivates. I say exhausting, for it takes a longer time and costs more to renovate the soil after raising a crop of turnips, than any other crop I cultivate. My experience is similar to Mr. Brigham's in the succeeding crops. I think the deterioration is fully one-half. Many argue that the turnip crop is not exhausting, as the broad leaves receive their nourishment from the atmosphere and the dews. If that be the case, and the food of plants is not imbibed by them in undue proportions, then I would suggest that they draw from the atmosphere poisonous substances and impregnate the soil with its deadly exudations. All I ask is, let the sticklers of the turnip crop make a fair experiment, (as Mr. Brigham has done,) side by side with other crops, and I opine they will abandon its culture as a field crop. I trust the day is not distant, when all prudent farmers will abandon its cultivation, for as the Hon. Mr. Brooks very truly says, "It costs too much to raise ruta bagas to justify their cultivation in this region."

There are other root crops less exhausting or less poisonous to the soil, and as easily cultivated, containing more nutriment, and more palatable to our stock, viz., carrots, mangold wurtzel, beets, parsnips, &c. &c., that the farmers may find it for their interest to raise, and without any perceptible exhaustion of the soil. I think it would be wise in our legislators to withhold the bounties of the State from those county agricultural societies that offer premiums for the turnip crops.

The individual may think he can plant an acre of turnips with impunity, and never realize his

loss by deterioration of his soil, nor care for its effects, so long as he reaps a bountiful harvest and present profit, but let him not "lay the pleasing unction to his soul," that it is an honest operation, for he must surely feel some twinge of conscience to leave to his progeny an exhausted and barren soil (as an inheritance,) made so by the avarice of their progenitor.

Therefore, I submit, that the evils of turnip culture (in a *moral* or *pecuniary* point of view,) are far greater than the equestrian performances of the ladies at our agricultural fairs. C.

North Pembroke, Mass., May 30, 1859.

For the New England Farmer.

SCIENCE FOR FARMERS.

MR. EDITOR:—We poor ignorant clodhoppers, who, away out in the country, plod over our farms, have little time to study the profoundly wise sayings of those who write big books and agricultural articles in the newspapers. We are in the habit of *believing* everything we find in these big books, when we have time to read them. But we are sometimes a little puzzled, when these wise writers disagree, to know which to believe. We desire, in all humility, to believe both sides, but cannot always reconcile the statements made so as to make that possible. What shall we do in such cases? Must we be at the trouble of using a little common sense—if we happen to have it? I suppose you will say, "Use your common sense." But have we no right to demand that those who pretentiously made statements with scientific gravity, should be careful to declare only that which they know?

The getter-up of the agricultural department of *Harper's Weekly* for May 14th, has given his readers what he calls an analysis of the grain, leaves and cob of the "white flint corn." He says:

"An analysis of the grain of white flint corn will give, of

Phosphates	about	35 per cent.
Potash	"	25 "

"The leaves will give, of

Silex	about	53 per cent.
Phosphates	"	19 "
Lime	"	6 "
Potash	"	12 "
Soda	"	9 "
Chlorine	"	10 "

"The cob will give, of

Silex	about	13 per cent.
Phosphates	"	23 "
Potash	"	35 "
Soda	"	5 "

"We give the above figures of some the most important elements for those who are curious in relation to the composition of the Indian corn plant."

Now, this looks a little, a very little, like a statement made by a person who, ignorant of the subject on which he writes, undertakes to prepare himself by "reading up" for the occasion, but does not do it carefully. There must be some mistake about it, or else some of us put a good deal of *potash* into our stomachs in the course of a year. I believe I average not far from a pound of Indian meal a day, taken in some form as food. Do I then eat *four ounces of potash* each day—or over ninety-one pounds in a year? that would be enough to made four barrels of good strong soft soap. I humbly trust I am not so full of *lie* as this would make me.

Then again, to think that the leaves of the corn plant contain 53 per cent. of silex; one might well imagine that our cows' teeth would soon wear out, if called upon to grind much of it. As to the cobs, too—35 per cent. of potash in them! Why have not soap-makers used them instead of ashes? More than one-third potash! How rapidly, too, the potash would be taken from the soil at this rate. A crop of 60 bushels to the acre, reckoning the potash at this rate in the grain, leaves and cob, would use up not far from 1400 pounds. The agencies that decompose and dissolve the rocks would have to be pretty busy in order to keep up a supply, at this rate of consumption.

I have no reliable analysis of the grain or leaves of Indian corn now, by me; but on reference to Dr. Jackson's analysis of the cobs of several different varieties of corn, it appears that in his specimens the percentage of potash varied from 2581-10000 to 6430-10000 of one per cent. The analysis given by the writer in *Harper's Weekly* was no doubt that of the ashes of the different parts of the plant, instead of the whole substance of those parts. My attention was drawn to this statement more particularly from having recently seen, in Liebig's Agricultural Chemistry, Indian corn classed with plants that "contain either no potash, or mere traces of it." This appears to be, at best, a careless statement; for, if Dr. Jackson's analysis is to be relied upon, (and I have never heard his accuracy called in question,) the cob analyzed by him averaged nearly a half of one per cent.; while dry, hard wood, according to an authority quoted by Dr. Dana, in his Muck Manual, contains but a little more than a fourth of one per cent. of potash and soda united.

This is a matter of much importance to us farmers, as a knowledge of the constituent elements of plants may guide to an economical use of fertilizers; and as few have either the ability or the means to make chemical analyses ourselves, we must depend on those who have, or ought to have, both; and we have a right to demand that what is told us shall be reliable—have we not?

Slackville, May 25, 1859. J. DOOLITTLE.

REMARKS.—Good, Mr. Doolittle. You live anywhere but in "Slackville." Some of the "big papers" of our land are recently attempting to enlighten their "rustic" readers in scientific matters relating to agriculture. We often notice in them the most inconsistent statements, as well as the most extravagant nonsense. Such "loose expectorations" are better suited to the gatherings of certain zealots, who love their country terribly just before an election! "Shoe-maker, stick to thy last," is an old adage, and is a good one. Some of our cotemporaries would do well to treasure up its sentiment.

DRAINING.—Some people think that it is all a matter of useless expense to drain land. But

it is probably not so. Col. Whipple has dug, stoned and covered some two hundred rods of drains on his land; one effect of which was shown last season in the fact that he cut twenty tons of hay on six acres of land where formerly only a small crop was produced.—*N. H. Democrat.*

EXTRACTS AND REPLIES.

ON RAISING MILLET.

Can you give me any information in regard to raising millet? Is it a good fodder for milch cows? Will it do to sow it upon green-sward and sow grass seed with the same? How much seed will it take per acre, and when should it be sown? What soil is best adapted to raising it?

Bedford, 1859. J. O. D.

REMARKS.—Millet makes a good crop for green or dry fodder, and may be fed to milch cows with advantage. It may be put on sward land if it has been deeply-plowed and well pulverized—but it grows too thick and rank to allow grass seed to do well with it. Any good corn land is suitable, and eight quarts of seed per acre is enough. Sow from first to middle of June.

POTATO BLIGHT.

In going from Hartford to Waterbury, in 1846 at the time of the blight, there was only one field that looked healthy, and that one was overtopped with buckwheat, so that if the blight came from the atmosphere, that it kept it from the the potato. One farmer informed me that a day or two before the blight he kept his wagon in his potato field, and a few bundles of straw were thrown out of the wagon upon the potatoes, and remained about a week, when he dug the potatoes. Those that were covered were not diseased, and the remainder of the field would not pay for digging. I think that early potatoes and early planting will be more successful than late planting, as far as my experience goes.

I will give you a receipt for curing a ring-bone, as it was given to me by one that told me he had cured quite a number by this application.

Take a pair of scissors and cut the hair from the bone, or around the hoof, then apply the oil of ambre, let it remain about two hours, then apply the soap palm-oil; this do once every day, and in 3 or 6 weeks the bone will disappear.

ROSE-BUGS.

June, the month of roses, will soon be along, and, as is usual, I expect to see rose-bugs come in large numbers; they not only spoil the roses, but the grape vines also suffer by their eating the blossoms. I know of no way to get rid of them. Who can tell? HENRY M. FALLS.

North Wrentham, May 30, 1859.

A LAME COLT.

Can you tell me what will cure the stiffness of the fore legs of a colt that was caused by standing in the stable and eating too much grain? It appears to be in the joints. H. M. A.

Charlestown, N. H., 1859.

VALUE OF RUTA BAGAS.

I noticed in one of your papers a piece from Mr. OTIS BRIGHAM, of this town, on root crops. It was answered by a gentleman, the next week, who did not exactly agree with him. He thought that ruta bagas were as profitable a crop as any. I have raised them until I am satisfied that they are not worth the trouble of raising. You can raise, on good land, from 600 to 1000 bushels per acre, but what corn you can raise on the same land will be worth four times as much for feed to cows, as the turnips. They will make milk enough, but it is good for nothing after it is made. The turnips taste in the milk, butter and cheese, and even the pigs turn their noses up when it is fed to them. Besides this, they injure the land so that you can raise nothing on it after them. J. L. T.

Westboro', May, 1859.

PREMIUMS.

Abstract of premiums awarded in the several towns in which exhibitions were holden in 1858:

Essex, Danvers	$201.53
Middlesex, Concord	242.00
Middlesex South, Framingham	293.61
Middlesex North, Lowell	355.37
Worcester, Worcester	340.50
Worcester West, Barre	240.99
Worcester North, Fitchburg	329.44
Worcester South, Sturbridge	108.00
Hampshire South, Northampton	216.00
Hampshire, Amherst	152.68
Hampden, Springfield	264.82
Hampden East, Palmer	195.75
Franklin, Shelburn	205 00
Berkshire, Pittsfield	344.50
Housatonic, Great Barrington	251.00
Norfolk, Dedham	135 00
Plymouth, Bridgewater	314.75
Bristol, Taunton	350.75
Barnstable, Barnstable	360.75
Nantucket, Nantucket	157.00
	$5149.44

The whole amount awarded is believed to have been about $12,000. Truly there is something in locality, where 20 towns out of 300 get nearly half the whole amount awarded. These facts present matters for deliberate consideration.—Conclusions are left to those disposed to make them. P.

June 1st, 1859.

TO PREVENT THE YELLOW STRIPED BUG FROM DESTROYING WATERMELON VINES.

Take feathers from a hen's wing, or take sticks and split them and put in cotton, which is about as good, dip them in spirits of turpentine, and stick them into the hill in an oblique or slanting position a little above the vines; two or three will be sufficient for a hill, and as often as it loses its strength, dip them over, and after every shower. I have taken boards five inches wide, made boxes and covered them with millinet, and put them over the hills; the vines would run up tall, like growing in the shade, and come to take the boxes off they would not do well; but put spirits of turpentine around the hills, and they will do well. H. S.

East Thetford, Vt., 1859.

TRANSPLANTING WHITE PINES.

If your correspondent, "Oak Hill," will give me his address, I will write and inform him

when and how I have succeeded best in transplanting white pines and other evergreen trees. I have now growing about my house some forty pines and one very fine hemlock, the latter measures 9½ inches in circumference and over 20 feet high. This is the second year since transplanting, and it is "coming out" finely.

SAMUEL RAYMOND.

North Andover, May 21, 1859.

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PINES—RASPBERRIES—GRAPES.

What is the best season for transplanting the white pines? Should the top be cut in? Where can the Ohio Ever-bearing Raspberry be obtained —and what are some of its prominent characteristics?

Is it ever desirable to shorten lateral grape vine shoots while growing, in order to strengthen fruit buds at their base for the succeeding years? AN ATTENTIVE READER.

New Bedford, May, 1859.

REMARKS.—Transplant the white pine in June. Take up the sod with the roots, and keep the roots from the sun and wind. Do not cut the tree anywhere.

We know nothing of the "Ohio Everbearing Raspberry."

It is quite a common practice to shorten lateral grape-vine shoots after the fruit is partly grown, in order to benefit the fruit, but not to our knowledge, so early as to strengthen the buds.

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APPLE ORCHARDS.

If apple seeds are planted, and the young trees budded or grafted where they are permanently to remain, the orchard will be worth twice as much as though it were managed in the usual way. The trees will live as long again, and bear twice as many apples, which will be larger, fairer, and will keep altogether better, especially if they are gathered as soon as they have got their growth, but before they are fully ripe. They will be fine-flavored in June and July, and consequently be valuable.

Apple trees grafted from scions that are two years old will bear every year, as a one year old scion has only half come to maturity, and consequently bears only half the time.

Corn for planting should be selected from an equal number of male and female ears, shelling and mixing them together. Plant in drills and let the spears stand six inches apart, and the yield will be three times as much as to plant in hills, with the manure in the hills.

S. P. BAKER, now 83 years old.

Ipswich, Mass., 1859.

REMARKS.—These statements are worthy of being tested.

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TO STOP COWS FROM KICKING.

Put her into the stancheon and put a rope around her horns and over the top of the stancheon, and draw her head up so that her back will be hollow; fasten the rope, and she cannot kick.

East Thetford, Vt., 1859. H. S.

RING BONE.

Can your readers give me information through the *Farmer*, what will cure ring bone, or the appearance of one, coming on a yearling colt?

Mason, N. H., May, 1859. S. H. WHEELER.

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For the New England Farmer.

THE SPIRIT OF PROGRESS.

MR. EDITOR:—Among the great discoveries in our day are the *steamers* which crowd their way through stormy seas, the *railroads* which bind whole continents together, the *telegraphic wires* which run their electric network through the air; these are the great nerves of human sympathy, and are destined to the high office of uniting the whole human race in one common brotherhood, if not to the greater work of revolutionizing the whole world.

Surely, this is an age of progress and improvement; and no power on earth can arrest its onward march. Our country is already dotted all over with improvements. No undertaking is too difficult, no obstacle insurmountable, no sacrifice too great for the enterprising spirit of the age. Directed by the skill of human genius, steam and electricity already cross our rivers and climb our mountains; and our railroads will soon extend from the Atlantic to the Pacific; and with the telegraph, holding hourly conversations with the different extremes of the Union, from sea to sea. This spirit of progress, this onward march of science and improvement, of civilization and freedom, can not be arrested; for the people who are engaged in this movement will roll on the car of civilization and improvement, till the whole American continent forms one vast Republic.

This onward march of the spirit of improvement is destined ere long to produce equally great and important results in our agricultural pursuits. It has already brought forth its mowers, its reapers, its threshing-machines, its horse-rakes, its stump-pullers, its seed-sowers, its horse-hoe, its harvesters and its corn-shellers; and it will soon introduce the *steam-plow* into all our great valleys, into the cotton fields and rice fields of the South, and into the great prairies of the West; and thus it will supersede, in a great measure, the use of slave labor, and cause the shout of freedom to be heard throughout the American continent; because one *steam-plow* can do more and better work than a hundred and fifty slaves; so that these United States will soon be as greatly distinguished for their agricultural pursuits, as they are now for the means of intercommunication.

Tell me not, that two-hundred and seventy-five thousand slave-holders will put their veto upon my steam-plow; for I know better; because I know, that they understand their own interests too well to do this. Tell me not, that the ignorant and the wicked, fearing the effects of all these improvements upon their own daily labors and income, will combine together as they have done in some instances already, and burn down all our steam-bakeries and machine-shops throughout the land, and thus burn their own fingers, put out their own eyes and starve their own families; for I will not believe, that, in this land of light and progress, of churches and schools and mis-

sionary efforts, any considerable number of persons can be found, so ignorant, so short sighted, and so vicious! No; the great mass of the people are right upon this subject. Their course is onward and upward. Their progress, if not so rapid as could be desired, is still in the right direction. "Having put their hands to the plow, they will not look back," but will press forward in the work of improvement till every mountain, hill and valley shall be improved and beautified; every field rendered productive; and every human dwelling shall be pleasant to behold, neat, beautiful and attractive. JOHN GOLDSBURY.

PRUSSIAN SHEEP.

The Merinoes were introduced into Germany, about the middle of the eighteenth century, and the advantageous change they effected everywhere they were introduced, could not be disputed. Notwithstanding this, Mr. Fink—to whom Germany owes much in regard to sheep-culture—unwilling to give up altogether the native breeds, purchased in 1768 some Saxon Merinoes, and though his breed was much improved, yet his object did not seem accomplished, and in 1778 he imported some pure Merinoes from Spain. He took as the guide of all his experiments, that which is now received as an axiom among breeders, that the fineness of the fleece, and to a great degree the value of the carcass, too, are far more attributable to the inherent quality of the animal than to any influence of climate or soil. Uniformly acting on this fundamental principle, and being most particular in the selection of the animals from which he bred, he improved his own native flocks to a considerable extent, and he succeeded to a degree which he dared not anticipate, in naturalizing a still more valuable race of animals. His success attracted the attention of the Prussian government; and Frederick II., in 1786, imported one hundred rams and two hundred ewes from Spain. Mr. Fink was subsequently commissioned by the government to purchase one thousand of the choicest Merinoes; agricultural schools were established, and at the head of one of them was placed Mr. Fink—the most competent of all persons—the first improver of the Prussian sheep. The following was Mr. Fink's mode of management:

He properly maintains, that free exposure to the air is favorable to the quality of the wool, and therefore, although the sheep are housed at the beginning of November, yet whenever it freezes, and the ground is hard, even although it may be covered with snow, the sheep are driven to the wheat and rye fields, where they meet with a kind of pasturage exceedingly wholesome, and while they feed they are likewise benefiting the crop. Nothing is more common than to see a flock of valuable sheep scratching away the snow with their feet, in order to arrive at the short wheat or rye beneath. When the weather will not permit their being taken out, they are fed on hay, aftermath, and chopped straw of various kinds. The kind of straw is changed as often as possible, and wheat, barley, and oat-straw, and pea-haulm follow each other in rapid succession. The oat-straw is sparingly given, and the pea-haulm is preferred to the wheat and barley-straw. Oil-cake, at the rate of six or seven pounds per hundred sheep, and dissolved in water is also allowed when the flock cannot be turned on the young wheat.

Three or four weeks before lambing, an additional allowance of hay and straw is given to the ewes; and while they are suckling, a little oatmeal is mixed with the solution of oil-cake. When the weather will permit the turning out of the ewes, the lambs are still kept in the houses, and the mothers brought back to them at noon and night; after that the lambs are not permitted to graze with the ewes, but are turned on the fallows or the clover of the preceding year; for it is supposed that they unnecessarily fatigue themselves by running with their mothers, and almost incessantly trying to suck, and that on this account, they refuse the herbage on which they are placed, and take less nourishment than when quietly kept on separate pastures. A few barren ewes are, however, placed with the lambs for the purpose of guiding them, and perhaps teaching them to select the best and most wholesome food. More lambs are saved than are necessary to keep up the flock, and when they are two years old they are inspected—one-third of the best of them are kept, and the remainder sold. The lambs are never shorn, in order that they may be better able to endure the cold and rain of autumn.

The Prussian sheep-dogs, like almost all on the continent, are trained to obey the shepherds, and are skilful in guiding the sheep, but they never worry or bite them. There is no natural necessity for it anywhere; and if flocks are occasionally wild and intractable, bad management and bad treatment have made them so.—*Youatt.*

For the New England Farmer.

THE MAGGOT IN ONIONS.

FRIEND BROWN:—I am pleased to see, by your paper of this date, a further explanation of Mr. Emerson's theory of the destruction of the onion maggot, by the application of guano. I find no fault with his facts, but with the inferences he draws from them, and beg leave, respectfully to say, that his facts do not warrant his conclusion.

I repeat, what I have before stated, that no method of destroying, or even checking the progress of the maggot, has yet come to my knowledge; and that I have no confidence at all that this can be done by the application of guano. Such is the opinion of many practical men of sound judgment, who have had a hundred times as much experience, in the culture of onions, as Mr. E. has; who have grown thousands of bushels annually, for the last twenty years; and who now discontinue the culture, by reason of their fearful apprehension of the ravages of this destroyer.

I am pleased to know that the Secretary of the Board of Agriculture is directing his attention to this subject. I would not have impugned Mr. E.'s assertions, if he had not unnecessarily commenced the attack. I commend his spirit of inquiry, but caution him not to think he knows as much about the culture of onions, from the growing a small bed in his garden, as those who

have grown acres, annually, for many years. I know one gentleman, of Marblehead, Mr. H. Ware, who last year grew ten acres, yielding, fit for market, more than 4000 bushels. Messrs. Buxton, Huntington, Watson, Bushby, Osborn, and others, cultivated in like manner—all of which crops came under my observation.

J. W. PROCTOR.

South Danvers, May 21, 1859.

N. B. I thank you for the just notice taken of our annual publication. Mr. Secretary Dodge is entitled to much credit for the compilation.

For the New England Farmer.

ONION CULTURE, MAGGOT, &c.

PUPA. FLY. GRUB.

ONION FLY.—*Anthomyia Ceparum*, (greatly magnified.)

"The male of this fly is of an ashy color, roughish, with black bristles and hairs; the eyes are contiguous and reddish, the face silvery white; horns black; there are faint lines down the trunk, and a line of long blackish spots down the centre of the body, more or less visible in different lights. The female fly is of an ashy grey color, clothed with black bristles and hairs; the eyes are reddish and remote, with a light chestnut stripe between them; face, yellowish white."

MR. EDITOR:—This vegetable, worshipped by the ancient Egyptians, and the want of which was so lamented by the Israelites in the wilderness, has within a few years, in many localities here, been almost entirely destroyed by the maggot, or grub of the onion fly, so called by one of the best entomological writers of England. He says, "The common onion fly, *Anthomyia Ceparum*, attacks the plants in their young state, and continues feeding on them during the whole summer; sometimes they attack the crop generally, causing a total failure, at other times attacking them in patches only, the effects being most observable in dry weather, the leaves turning yellowish, and the plants at last falling over and decaying. On removing the outer coating or skin of the plants destroyed, the cause will be discovered in the presence of a small grub, which eats its way into the very heart of the onion. The eggs of the fly are deposited on the leaves when in a very young state, and close to the earth; as soon as the maggots are hatched, which takes place about the time the plants are the size of a small quill, they bore their way through the outer leaf and penetrate the onion at its base, feeding chiefly on the bottom part of the bulb, causing it to separate from the root, and occasionally, a mass of mouldiness familiar to every cultivator.

These grubs generally attain their full size in about fourteen days, they then descend into the earth to undergo their transformation, when they become a reddish brown pupa of an oval form. The means hitherto employed for subduing these, are, laying soot over the beds, or incorporating it with the soil, applying salt in the same manner, watering with lime-water, gas tar, stale soapsuds, soot water, stale urine and old tobacco water. Their power of reproduction is so great, that unless they are destroyed the moment they are discovered to have attacked the crop, (which is known by the drooping and yellow leaves,) their total eradication becomes next to impossible; all other means except carefully pulling up every diseased plant and burning it, can only be regarded as exceedingly superficial in their effects. Deep trenching, and frequently turning over the soil, are of great advantage, in the one case, burying the pupa too deep for its again reaching the surface, and in the other, disturbing it during its transformation, and probably preventing that change from taking place.

Sowing onions year after year, on the same ground, is a very certain way of multiplying these insects, and might be carried to the extent of literally stocking the ground with them. Insects peculiar to any plant, seldom attack the crop during the first year, after being planted in land not previously occupied with the same kind of crop, because the soil has not yet become furnished with the pupa of the insect peculiar to the plant; hence some advantage arises from sowing onions after celery, and *vice versa*, cabbages after potatoes, &c.

Spirits of tar is of great use, if applied in sufficient quantity to the soil immediately *after* the crop is removed. The following has been applied to an onion crop, even after the insect has commenced his work:

To 20 gallons of water, 1 peck unslacked lime, ½ peck soot, 2 gallons of urine, 1 pound soft soap and 2 pounds flour of sulphur. After the above mixture is settled, it is then sprinkled over the bed through the nose of a watering pot. "Powdered charcoal has been used, but is not found so efficacious as soot. Branconnet has shown that a watery infusion of soot is eminently antiseptic, preventing the rottenness to which the onion is extremely liable when attacked by the grub."

J. M. IVES.

Salem, June, 1859.

For the New England Farmer.

WHITE SPECKS IN BUTTER.

MR. EDITOR:—I noticed in the *N. E. Farmer* last week, your theory about churning to prevent white specks in butter. Having devoted my whole time, for the last five years, in the manufacture and sale of the Fyler churn, and spent much time among the dairies of Vermont and northern New York, I venture to differ with you in theory on that subject. You say as soon as the butter begins to come, scrape carefully down all the cream that is thrown to any part of the churn, and has escaped its share of churning. I say *never* scrape the cream down into the *churn* after it begins to come; if scraped at all, scrape it into the cream pot and save it for a new churning, and not into the churn to form those very specks you wish to avoid. Those white specks are usually caused by uneven churning.

The true principle of churning is, to have the dasher of the churn so adapted to the inside of

the cylinder as to act on all the cream alike, and if so adapted, and the cream has been properly cared for, and you churn quite slow till it is perfectly mixed, and then faster, till the sacks containing the butter begin to break, and then will scrape what is on the lid into the cream pot, you will not be troubled about those white specks that spoil one-half the butter made in this country.

To carry out your theory, suppose you try an experiment; churn, say nine quarts of cream on my principle, and see how much butter, then take the same quantity and churn till it begins to come, or until you have churned one-half the time required; now put in another quart of cream, and I will be bound, you will either have plenty of white specks, or your buttermilk will be enriched with about the value of one pound of butter. HENRY HOLMES,

Proprietor of O. R. Fyler's Butter Working Churn

Grafton, Vt., May 30, 1859.

REMARKS.—We have no doubt that the practice which our correspondent suggests, is the true one—although careful butter makers seldom experience any trouble in scraping the cream down, as we suggested. We have the Fyler churn in constant use, and after having tried several other kinds, do not hesitate to say that it is the best churn we ever used. We hope all butter-makers will adopt the practice of our correspondent, rather than ours, for in that no risk whatever is run. He has our thanks for his prompt and timely notice of the matter, and we hope to hear from him again on the important subject of butter-making, packing, and keeping.

A REMEDY FOR POISONED SHEEP.—Give them a table-spoon twice full of weak lye, and it will raise them in fifteen minutes after given. One morning I found fifteen or twenty sheep poisoned by eating ivy the day before. Some of them when found were flat on their sides; others frothed at the mouth, grated their teeth, and staggered about badly from the effects of the ivy. Those that were not found sprawling were cured by putting a gag in their mouths, which would keep the sheep from swallowing the poison, but let it rise and run out of their mouths. After I had lost three out of six, that could not hold up their heads, and appeared lifeless, one of my neighbors recommended weak lye as a sure cure; it was given them, and in ten minutes one of the sheep was eating rowen. It had the same effect on the other two, and the whole three are now as lively as any of the flock.—*Virginia Farm Journal.*

WALKING AND PURE AIR.—Anaximines taught that air is mind. Some one else says air is the hidden food of life. Plutarch seems to incline to Anaximines' opinion, remarking that perhaps the reason why there is a sympathy of feeling on various subjects, arises from breathing the same air. Air is an exhalation of all the minerals of the globe; the most elaborately finished of all the works of the Creator—the rock of ages disintegrated and fitted up for the life of man. All classes of men affirm this. Sydney Smith says to public speakers, that if they would walk twelve miles before speaking, they would never break down. In English Universities, boat races, horse-back rides, and ten-mile walks are a part of the educational means for physical development.—Plato says a walk in the open air will almost cure a guilty conscience.—*Emerson.*

LADIES' DEPARTMENT.

HOW THEY MAKE COFFEE IN FRANCE.

A cup of French coffee seems to have the effect to put Americans into ecstacies; yet few of them are thoughtful enough to obtain from their French brethren the process by which the delicious beverage is decocted. Of this few is a Buckeye writing from Paris, under date of Nov. 9th, who supplies the desired information:

"While at Mr. Moriols, his good lady kindly initiated me into the art of coffee-making. In the first place it is scorched in a hollow cylinder, which is kept constantly revolving over a slow fire, and not a grain of it allowed to burn. Secondly, it is ground very fine, and thirdly, when it is to be used, a portion of this is placed in a finely perforated pan or cup, which exactly fits into the top of the boiler, coffee-pot, or any vessel you wish to use. Boiling hot water is then poured on, and it percolates gradually through, carrying with it all the essential principles of the coffee. As soon as percolation is completed, the pan is removed containing all the grounds, and then boiling hot milk is added to the infusion, and your coffee is made. It is brought on the table in bowls, with a knife and spoon, and a little willow basket of bread. The servant then places by your plate a tea-dish, on which are two or three lumps of white sugar always of a certain size, and you sweeten to your liking. In no instance is your coffee boiled, and this is one reason the *cafe au lait* and *cafe noir* are so much admired by those who take them. If you try this mode, I am sure, in a few experiments you will succeed in getting it right, and possess yourself of a luxury which will add very much to a breakfast on a cold morning—try it."

A LADY OF THE OLDEN TIME.—Mrs. Troupe, the accomplished wife of a captain of the British navy, gives a lively account of a call she with two other ladies made upon Mrs. Washington, who, like her husband's mother, was distinguished for her management of household affairs. "As she was said to be so grand a lady," says Mrs. Troupe, "we thought we must put on our best bibs and bands. So we dressed ourselves in our most elegant ruffles and silks, and were introduced to her ladyship. And don't you think we found her *knitting, and with a check apron on!* She received us very graciously and easily, but after the compliments were over, she resumed her knitting. There we were, without a stitch of work, and sitting in state; but General Washington's lady with her own hands was knitting stockings for her husband."